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62,23

GARDEN ANNUAL *for 1953*



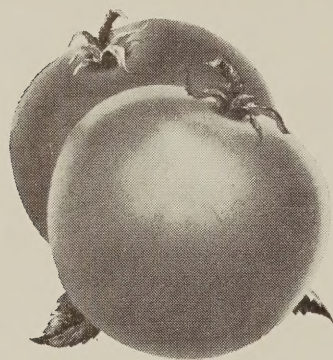
GEO. KELLER & SONS

909 MAINE STREET
QUINCY, ILLINOIS

12

ALL TIME WINNERS

★ ★ ★ ★ ★ ★ FOR THE VEGETABLE GARDEN



PRITCHARD TOMATO (Scarlet Topper)—Ideal all-purpose red tomato. Medium to large round with thick firm flesh and small seed cavities.



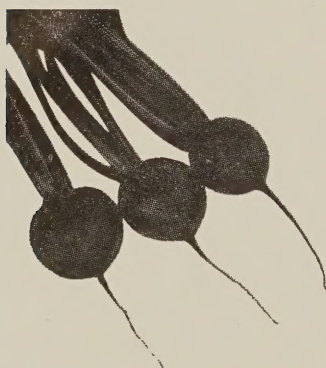
CHERRY BELLE RADISH — Round, smooth red radishes $\frac{3}{4}$ inch across. Resemble cherries in shape and color. Flesh is white, crisp and firm.



GREAT LAKES LETTUCE — Outstanding Iceberg or Crisp head type. A summer lettuce that stands heat well. Resistant to tip burn.



AMERICA SPINACH — The best long-standing, heat-resistant, heavy yielding, savoy-leaved spinach. Leaves glossy, dark green, thick and tender.



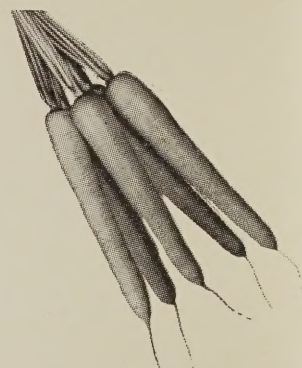
PERFECTED DETROIT BEET — Standard of excellence in table beets. Smooth, globular roots of deep ox-blood red. Sweet and tender.



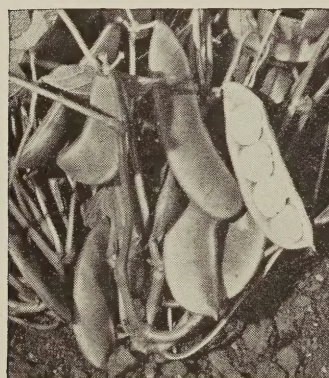
EARLY SURECROP HYBRID CUCUMBER — Slender, dark green with crisp white flesh. Unusually delicious. Disease resistant.



CHIEFTAIN SAVOY CABBAGE — Flattened globe-shaped. Crumpled leaves. Is of outstanding quality and flavor.



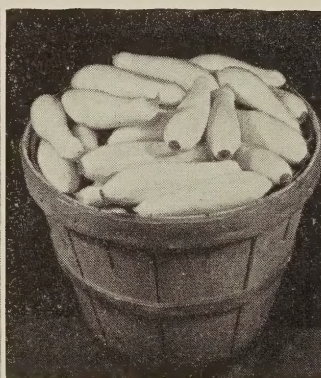
IMPERATOR CARROT — Exceptionally heavy yielder and always smooth and uniform. Fine-grained, tender. Rich orange, indistinct core.



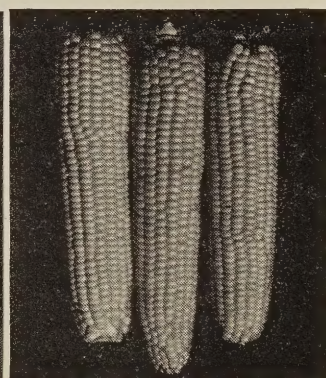
FORDHOOK NO. 242 BUSH LIMA—Straight pods with plump, large beans. Especially recommended for productivity under adverse conditions.



TOPCROP BEAN—Meaty, entirely stringless and without fiber. Highly productive and resistant to common bean mosaic.



EARLY PROLIFIC STRAIGHT-NECK SQUASH — Fruits are creamy yellow. Heavy yielder or unsurpassed quality.

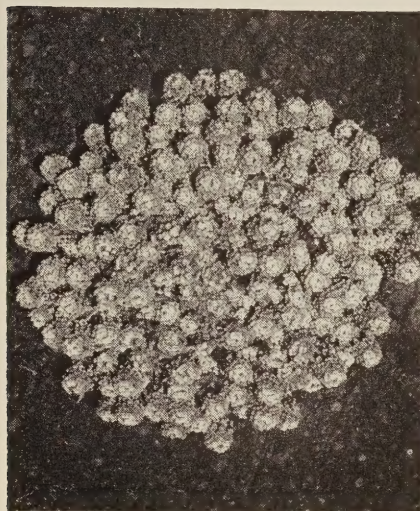


IOCHIEF SWEET CORN — A yellow hybrid sweet corn with sensational qualities. Sugar sweet and tender. Stays prime longer.

ALL-AMERICA SELECTIONS

These are New ALL AMERICA SELECTIONS

★ ★ ★ ★ ★ ★ ★ FOR NINETEEN FIFTY-THREE



ROYAL CARPET ALYSSUM

Silver Medal

The rich violet counterpart to the white Carpet of Snow Alyssum. It is only a couple of inches high but spreads to 10 or more inches across and is covered with a sheet of bloom over a long season. Very uniform in type and color, Royal Carpet is perfect for edgings and ground cover. It is the first new alyssum in 12 years and is strikingly beautiful and contrasting in color with the white.



COMANCHE PETUNIA

Bronze Medal

The reddest of red petunias, richer, brighter, more uniform scarlet red and larger than Fire Chief Petunia, the Gold Medal Winner for 1949. Single flowers, 2½ to 2¾ inches in diameter, have superior substance and provide valuable cutting material. It grows about 13 inches high and holds its red color under shady and foggy conditions. Its hybrid vigor makes this a grand bedder, standing erect in most weather.

Staying One Step Ahead

It has always been our policy to offer our customers the best merchandise available, only proven flower and vegetable seeds and the latest gardening aids. Our catalog lists some of the things we have to offer. It is the many services we offer which cannot be pictured nor adequately described, that can make all the difference between success and failure in your garden. Come in and talk over your gardening problems with us.

In line with our policy of staying "one step ahead," this year we are featuring the All-America selections, the newest and best offered in the seed world.

Each year the All-America Selections Council chooses new flowers and vegetables which have been proved noteworthy, and presents Gold, Silver and Bronze medals according to their worth.

This year, instead of individual vegetable awards for 1953 introduction, the All-America Selections Council announced a collection of the best all-time home garden vegetables chosen from previous All-America Selections. These vegetables (shown on the opposite page) provide a nicely-balanced collection for a home garden. They have high quality, flavor, tenderness and high yield, plus disease resistance. They are adapted to our local climate and soil conditions and give both garden and table satisfaction.

Flowers chosen by the Council for 1953 introduction are shown on the left. These two All-America winners are top-notch novelties of long-lasting characteristics. Every garden can use them both. They are continuous, all-season bloomers, colorful and delightful. Try planting either or both in your garden this year and you'll be charmed with the result.

THE JUDGES TEST THE NEW

Making news in the Gladiolus world are the following outstanding varieties:

King David—deep royal purple with a velvet throat.

Edith Warr—light rose florets highlighted by a faintly rose-lined throat.

Forsythia—fluted ruffled yellow.

Tyrone—lavender with a cream speckled throat.

Howard V. Wright—light yellow shading to a deeper throat.

Columbia—creamy white florets edged in bright rose.

Valentine—light orange with a deep orange heart shaped blotch.

Some of the finest new chrysanthemums include:

Alex Cumming—cerise buds maturing into rosy red flowers touched lightly with gold in the center.

Jubilee—informal pompon. Crimson to clear red.

Spindrift—single, daisy-type mum of velvety red.

Three of the loveliest Dahlias recently taking awards are:

Patricia Spollen—orange, large incurved cactus type.

Stoplight—carmine red, medium straight cactus.

Marion Glenn—peony purple, medium size.



Happy Springtime, Neighbor!

Let us give you pathway pointers to bounty and beauty in your Gardens THIS YEAR!

Just as one good neighbor to another, we're interested in your gardening and we have a pretty good insight into your garden needs and preferences.

Our practical knowledge of gardening is part of our stock in trade. We want all of your gardening efforts to be successful, and we try to do all we can to make them so. As seed professionals, we know what you'll need every step of the way—and as local seedsmen, we know local growing conditions, local soil and climate, enabling us to help you with your gardening far better than some distant seed house.

You will find the pages of this book, your 1953 Garden Annual, crammed full of helpful gardening suggestions. It is far more than a seed catalog, it is a practical gardening reference book. In these pages, as in our store, you'll find the answer to most of your gardening needs.

Won't you come in soon and pay us a friendly visit?

PRICES: All prices in this catalog are subject to change without notice.

MAIL ORDERS: On mail orders, all packet seeds are sent postpaid. On all other items, add parcel post charges to your remittance.

GEO. KELLER & SONS

**909 MAINE STREET
QUINCY, ILLINOIS**

How Large A Garden Should YOU Plant?

Your Garden Annual is full of information which will be helpful in planning your garden this year to fit your family's needs.

In this book you will find—

... suggested garden plots planned to give you continuous yield throughout the season

... all the latest news of flowers and vegetables

... practical suggestions for building up your soil and maintaining fertility

... how to care for your lawn

... vegetable and flower seeds chosen to fit our local conditions.

All this and more information has been compiled in this book to help you toward better gardening.

So, whether you're an amateur or an experienced gardener, you'll find your GARDEN ANNUAL useful now and later. We suggest that you begin using it today as a guide for your planning, and later, as a guide for effective action all through the season.

NOTE: If any of your gardening friends have not received this catalog, and would like to have a copy, just let us know. But please do so early, as the supply is limited.

LIMITED WARRANTY: Our Company warrants to the extent of the purchase price that seeds or bulbs sold are as described on the container within recognized tolerances. Seller gives no other or further Warranty, express or implied.

Flowers

FOR YOUR GARDEN

The Finest in the World

KEY TO SYMBOLS

The symbols below the name of each flower give you the following information. (a)—Annual (b)—Biennial (hp)—Hardy Perennial.

The Culture Number shown for each variety refers to the "How to Grow" information on page 14.

AGERATUM

(a) Culture I, 4-9"

BLUE PERFECTION—A deep amethyst blue. Grows to 9 inches high.

MIDGET BLUE—Small 4-inch plants are covered with azure blooms. Pkt. 25c.

ALYSSUM

(a) Culture II (hp) VI, 4-6"

CARPET OF SNOW (a)—Easily grown dwarf annual. Fragrant snow white flowers last from early summer until frost.

ROYAL CARPET—All America Silver Medal, 1953. In drifts of vibrant purple color or used as a neat edging for the flower bed. This companion for Carpet of Snow grows only a few inches high and 10 inches across. Has no pest or disease troubles. Pkt. 35c.

SAXATILE (hp)—Dwarf perennial. Golden flowers in spring.

ANCHUSA

(a) Culture I, 2'

BLUE BIRD—Bushy plants with sprays of blue, white-eyed flowers.

ANTIRRHINUM—Snapdragon

(a) Culture, I, 1 1/2-3"

TALL GIANT, LARGE FLOWERED—Large 3 foot spikes, huge flowers.

MAXIMUM—Tallest kind. All colors. Handsome and erect. Pkt. 25c.

SUPER-MAJESTIC Giant Flowered—Semi-tall to 2 feet. Large garden flowers. Pkt. 25c.

TETRA—Immense flowers in many fine colors. Many spikes. Mixed. Pkt. 25c.

MAGIC CARPET—A delightful new little snapdragon especially well suited to edgings and use in rock garden. Pkt. 25c.

AQUILEGIA—Columbine

(hp) Culture VI, 2 1/2"

MRS. SCOTT ELLIOTT'S LONG SPURRED—Large colorful blooms.

ARABIS—Rock Cress

(hp) Culture VI, 1'

Creeping plants with small flowers in early spring. Fine for edging.

ARCTOTIS—Blue-Eyed African Daisy

(a) Culture I or II, 3'

GRANDIS—Two-inch daisies of pearly white with bluish center.

ARMERIA—Thrift

(hp) Culture VI, 1 1/2'

Dwarf rock plants with grassy foliage and globular flowerheads. Pkt. 25c.

AUBRIETIA—Purple Rock Cress

(hp) Culture VI, 6"

A creeper with large colorful flowers in spring. Ideal with bulbs.

ASTER

(a) Culture 1 1/2-2 1/2'

WILT RESISTANT SUPER GIANT, MIXED

—An entirely new class of base branching, heavy stemmed, fluffy ostrich feather flowers. Packet 25c.

AMERICAN BRANCHING—Four inch double flowers of compact form. Brilliant.

GIANT CREGO Wilt Resistant—Large 4-inch flowers with fluffy effect. All colors.

PRINCESS—Three-inch flowers are compact crested center. Mixed.

QUEEN OF THE MARKET—Early. Short plants. Compact double flowers. Mixed. Marvelous blend of colors.

SUNSHINE—4" flowers. Loose row of petals, quilled center. Pkt. 20c.

SUNSHINE—4" flowers. Loose row of petals, quilled center. Pkt. 20c.

BABY BLUE EYES—SEE NEMOPHILA

BABY'S BREATH—SEE GYPSOPHILA



PETUNIA, Ballerina

All American 1952 Honorable Mention





This bouquet contains unusual varieties of Gaillardia, Zinnias, Cosmos, Calliopsis, Chrysanthemums, Aster, Candytuft, Carnation and Marigold.

BACHELOR'S BUTTONS—

Centaurea, Cornflower

(a) Culture II or IV, 3'

BLUE BOY—A fine, clear blue. Flowers are large. Colors intense.

PINKIE—Lovely rose pink.

RED BOY—Bright crimson.

SNOW MAN—Snow white.

JUBILEE GEM—Dwarf, 1' plant. Large, frosty blue blooms. **Mixed**—All colors.

BLANKET FLOWER—SEE GAILLARDIA.

BALLOON VINE—

Love in a Puff

(a) Culture I, 10' to 15'

A clear, free-growing vine with small white flowers, and balloon-like seeds.

BALSAM—Lady Slipper

(a) Culture II, 1½-2'

MIXED—Double Camellia-like flowers all summer on bushy plants.

BELLIS PERENNIS—SEE DAISY, ENGLISH.

BLUE LACE FLOWER—SEE DIDISCUS.

BRACHYCOME—SEE DAISY, SWAN RIVER.

BURNING BUSH—SEE KOCHIA.

BUTTERFLY FLOWER—SEE SCHIZANTHUS.

CALENDULA—Pot Marigold

(a) Culture II or IV, 1½'

SUNSHINE—Golden flowers with drooping petals. Odorless.

SUNSET SHADES—Large flowers in shades: yellow and orange.

PACIFIC BEAUTY, PERSIMMON — Large, bright, orange, double.

MIXED—Fine mixture of many colors and types. Good for cutting.

CALIF. POPPY—SEE ESCHSCHOLTZIA

CALLIOPSIS—Tickseed

(a) Culture II or IV, 1-3'

DWARF MIXTURE—One-foot plants with many colors of yellow and red.

TALL MIXTURE—A splendid range of various colors on tall plants.

CAMPANULA—Canterbury

Bells

(b) Culture VIII, 2'

SINGLE—Large bell-shaped flowers in many colors. Graceful plants. **Mixed**.

DOUBLE—Fine double flowers in blue, pink and white. **Mixed**.

CUP AND SAUCER—Bell-shaped. Saucer of petals at base. **Mixed**.

CANDYTUFT—Iberis

(a) Culture III, 1'

WHITE HYACINTH—Large conical spikes of snowy flowers. Fine for edging.

PERENNIAL GIBRALTARICA — Lilac-pink blooms. Needs protection in the winter. Prefers hottest, driest location. Height, 10 to 12 inches.

SEMPERVIRENS—The perennial white Candytuft. Most desirable perennial for borders and rock gardens. Is evergreen.

CARDINAL CLIMBER—

Imp. Cypress Vine

(a) Culture III, 10-15'

Slender vine with bright green fernlike leaves. Red flowers.

CARNATION

(a) Culture I or VIII, 18"

CHABAUD'S GIANTS—Large double flowers with sweet fragrance. All colors. Flower in six months.

CASTOR BEAN—Ricinus

(a) Culture III or VII, 10'

ZANZIBARIENSIS—Tall, strong plant for bold effect. Large lobed bright green leaves. Excellent for backgrounds.

CELOSIA—Cockscomb

(a) Culture I or II, 1-3'

CRISTATA—Low grower with large crested heads, as rooster combs.

PAMPAS PLUMES—Tall, feathery heads in new bronze and sunset shades. Pkt. 25c.

GOLDEN FLEECE — Plumes are huge and dense, on long cutting stems, dozens of them to the plant. Stands any amount of hot weather, pest and disease resistant and will cut-and-come again all season. Pkt. 25c.

CENTAUREA—SEE BACHELOR'S BUTTONS

CHRYSANTHEMUM

(ANNUAL)

(a) Culture II or IV, 1½'

SINGLE PAINTED DAISY, MIXED—Showy daisy-like flowers. Rings of red, yellow, on white, red or yellow flowers.

CLARKIA

(a) Culture II or IV, 2'

DOUBLE MIXED—Large double flowers in many gorgeous colors. Graceful plant. Does well in light shade.

CLEOME—Spider Plant

(a) Culture II or IV, 3-4'

PINK QUEEN—A tall plant with many pink flowers. Neat foliage.

COCKSCOMB—SEE CELOSIA

COREOPSIS

(hp) Culture VI, 2'

SUNBURST—Large, double flowers of rich golden color. Fine for cutting. Sturdy, good grower.

COLUMBINE—SEE AQUILEGIA

CORN FLOWER—SEE BACHELOR'S BUTTON

COSMOS

(a) Culture II or IV, 3-4'

FIESTA—Bi-color! Orange colored with scarlet longitudinal stripes. New. Pkt. 25c.

DAZZLER—Wavy fluted petals of a velvety crimson-maroon.

ORANGE RUFFLES — Semi-double flowers. Golden orange. Airy effect. Pkt. 25c.

YELLOW FLARE — Butter-yellow flowers. Similar to Orange Flare.

RADIANCE—A bi-color! Beautiful, deep rose flowers have a rich crimson zone in center.

SENSATION MIXED—Huge single flowers, wavy petals, many colors.

YELLOW RUFFLES — New. Semi-double. Bright yellow. Airy effect. Pkt. 25c.

CYNOGLOSSUM—Chinese

Forget-Me-Not

(a) Culture II, 15"

FIRMAMENT—Hundreds of tiny indigo blue flowers. Resemble Forget-me-nots. Bloom all summer.

DAHLIA

(a) Culture I or II, 14"

UNWIN'S IDEAL BEDDING—Semi-double flowers on low bushes. Fine for beds or borders. Many colors. Pkt. 20c.

DAISY, AFRICAN—SEE ARCTOTIS

DAISY, ENGLISH—Bellis

Perennis

(hp) Culture VI, 8"

Low plants with colorful double daisies in early spring. Ideal for beds, Pkt. 20c.

A GARDEN IN COLOR

Combinations in color for the annual garden are unlimited. A color scheme which is said to be restful, is the blue and lavender garden. Listed alphabetically, here are a few of the more popular annuals which may be used for this.

Ageratum—Midget Blue; **Alyssum**—Royal Carpet; **Anchusa**—Blue Bird; **Bachelor's Buttons**—Blue Boy; **Didicus** (Blue Lace Flower); **Larkspur**—Regal Dark Blue and Lilac; **Linum**—(Flowering Flax) Perennial Blue; **Lobelia**—Crystal Palace; **Morning Glory**—Heavenly Blue; **Nemophila** (Baby Blue Eyes); **Petunia**—Blue Bee; **Salvia** (Flowering Sage)—Blue Bedder; **Scabiosa**—Blue Moon and **Vinca** (Periwinkle).

A border garden of white annuals planted against a background of shrubs is always beautiful. A few we might suggest are:

Alyssum—Carpet of Snow; **Centaurea**—Snow Man; **Candytuft**—White Hyacinth; **Gypsophila**—(Baby's Breath)—Annual White; **Larkspur**—Regal White; **Mignonette**; **Nicotiana**; **Petunia**—Snow Storm; **Scabiosa**—Peace; **Shasta Daisy** and **Verbena**, Mammoth White.

Or you might want to have your garden in blues, yellows and white. If so, here is a striking border:

Plant the soft yellow **Marigolds**, **Zinnias** and **Annual Phlox** in drifts or long masses throughout the border. As a background use the blues and lilacs of **Larkspur**. Along the border carry out your blues with **Scabiosa**—Blue Moon; **Salvia**—Blue Bedder, **Didiscus** planted near the pure white **Centaurea** (Bachelor's Button) or behind the giant white **Hyacinth Candytuft**.

FLOWER Garden PLANNING

An easy way to lay out an attractive border garden is to use a couple of lengths of hose or rope to mark off the edge, carefully adjusting it to the curves you want. If you are planting a perennial garden, here are a few suggestions for beautiful bloom year after year with a minimum of effort.

In the background plant clumps of **Delphinium**, **Coreopsis**, **Hollyhocks**, mixed **Lupines**, and another clump of **Delphinium**. In front of these larger flowers, you might plant **Perennial Phlox**, **Aubretia**, **Blue Linum**, **Geum**, **Gaillardia**, **Aquilegia** and **Tritoma**.

Then, forming the edge of the perennial garden, plant groupings of **English Daisy**, **Alyssum**, **Violas**, **Arabis**, **Armeria** and **Shasta Daisy**.

The perennial garden which includes bulbs is greatly enhanced by groupings of the spring flowering bulbs throughout the garden. A background for the border garden which also includes **Regal lilies** and **daylilies** in clumps is strikingly beautiful.

By checking the guide on page 11, you can estimate germination and blooming periods, so that a constant succession of blooms can be planned.

DAISY, SWAN RIVER—

Brachycome

(a) Culture II, 10"

MIXED—Many colored small daisy-like flowers freely produced all summer. Good garden stand-by.

DELPHINIUM—Perennial

Larkspur

(hp) Culture VI, 5'

GIANT PACIFIC HYBRIDS—World famous strain of immense double flowers on tall stems. Many new colors. Pkt. 35c.

DIANTHUS—Pinks

(a) Culture I or VIII, 1'

DOUBLE AND SINGLE MIXED—Fine mixture of colorful, scented, garden pinks.

GAIETY—Fringed petals in a wide range of flower colors and shapes. Single with lacy appearance.

HEDDENSIS—New tetraploid hybrids! Larger flowers, longer stems, better growth. Many fine colors.

DIANTHUS BARBATUS—SEE SWEET WILLIAM

DIDISCUS—Blue Lace Flower

(a) Culture I or II, 2 1/2'

COERULEUS—Lacy heads of lavender and blue flowers. Lovely to cut.

DIGITALIS—SEE FOXGLOVE

ESCHSCHOLTZIA—California

Poppy

(a) Culture III, 1'

Large single poppy-like flowers in many showy colors. Fern-like leaves.

EUPHORBIA—SEE SNOW-ON-THE MOUNTAIN

EVERLASTING FLOWERS

(a) Culture II, 1 1/2-3'

MIXED—Contains such favorites as **Strawflower** and **Globe Amaranth**. Fine for dried bouquets.

FLOWERING FLAX—SEE LINUM

FOUR O'CLOCK—Mirabilis

(a) Culture III, 2'

Bushy plants covered with flowers of red, pink, white, violet, and yellow. Flowers close in bright sun.

FOXGLOVE—Digitalis

(b) Culture VII, 3'

Tall spikes of lovely thimble-shaped flowers of pink, rose, and purple. Beautiful blooms second year.

GAILLARDIA—Blanket Flower

(a) Culture II, (hp) VI, 2'

DOUBLE, MIXED PICTA (a)—Showy round flowers with tubular petals. Many colors. **PERENNIAL MONARCH MIXED** (hp)—Superb daisy type flowers in shades of red and yellow.

GEUM

(hp) Culture VI, 1 1/2'

MRS. BRADSHAW—Glowing Scarlet flowers. Bright green foliage. Pkt. 20c.

GILLIFLOWER—SEE STOCKS

GLOBE AMARANTH—SEE EVERLASTING FLOWERS

GOMPHRENA EVERLASTING—SEE EVERLASTING FLOWERS

GODETIA—Satin Flower

(a) Culture I or II, 2'

DOUBLE, MIXED—Azalea-like flowers of many colors on bushy plants.

GOURDS, ORNAMENTAL

(a) Culture III, 12'

MIXED—Large and small kinds that will be useful for dried novelties.

GYPSOPHILA—Babys' Breath

(a) Culture I, (hp) VI, 1 1/2-3'

ANNUAL WHITE (a)—Open, bell-shaped blooms on branching stems give airy touch to garden or bouquet.

PERENNIAL WHITE (hp)—Large loose clusters of small flowers give misty effect. Excellent for cutting.

Hotkaps*
FROST CAN'T HARM PLANTS
FLOWERS & VEGETABLES 3 WEEKS EARLIER!
 Give your favorite flowers and vegetables an earlier **SAFE** start! **Glastex! HOT-KAPS** provide individual **HOTHOUSES** for seedlings and for young plants, give positive protection against frost, storms, sun, insects.

†GLASTEX specially processed material Reg. U. S. Pat. Off.

BIG GARDEN PACKAGE of 25 only 95¢—Setter Free
 Larger Pkgs. of 100, 250, 1000 for Commercial Growers

'TWIST-EMS'
Handy! Speedy! PLANT TIE

Strong, dark green "invisible" tapes with wire reinforcing—protect stems, speedily and permanently support annuals, perennials, vines, shrubs, and vegetables.

Box of 200, 4-inch size, 25¢. Box of 100, 8-inch size, 25¢.
 Box of 100, 16-inch size, 50¢. Pkg. of 50, 8-inch size, 15¢.
 Pkg. of 35, 8-inch size, 10¢. 250 ft. continuous roll, \$1.00.

TRAIN-ETTS*
 Ideal support for SWEET PEAS, GARDEN PEAS, POLE BEANS, CUCUMBERS, TOMATOES Hung in 5 minutes. Doesn't rot like string, nor burn tendrils like wire. 3 sizes.

60-inch x 72-inch, 65¢
 60-inch x 96-inch, 85¢
 60-inch x 180-inch, \$1.25

ALL PRICES IN THIS CATALOG ARE SUBJECT TO CHANGE WITHOUT NOTICE

HELIANTHUS—Sunflower
 (a) Culture II, 6'
SUN GOLD—Large double flowers of a brilliant golden yellow.

HELICHRYSUM—SEE EVERLASTING FLOWERS

HIBISCUS—Rose Mallow
 (hp) Culture VI, 4'
GIANT MIXED—Huge bell-shaped flowers in white, pink, red. Tall plants for damp spots.

HOLLYHOCK
 (hp) Culture VI or VIII, 5'
CHATER'S DOUBLE, MIXED—Large double flowers on tall spikes. Bloom in midsummer.

HUNNEMANNIA—Mexican Tulip Poppy
 (a) Culture III, 1 1/2'
SUNLITE—Soft yellow double poppy type flower. Bluish fine cut leaves. Different and effective.

IBERIS—SEE CANDYTUFT
IPOMEA—SEE MORNING GLORY

KOCHIA—Burning Bush or Summer Cypress
 (a) Culture III, 2 1/2'
 Compact pyramid. Needs no trimming. Bright green foliage makes neat, quick hedge. Turns bright red in fall.

LADY SLIPPER—SEE BALSAM
LATHYRUS LATIFOLIUS—SEE PERENNIAL SWEET PEA

LARKSPUR—Annual Delphinium
 (a) Culture II or IV, 3'

REGAL DARK BLUE—Tall spikes of large double flowers in a violet blue.

REGAL WHITE—Pure glistening white spikes. Tall and stately.

REGAL PINK—Lively light salmon pink. Glorious when cut.

REGAL LILAC—Clear lilac with green buds. Tall with fat spike of large florets.

REGAL ROSE—Rose color. Long, thick spikes with exceptionally large florets. Vigorous and early.

RUBY—A genuine ruby red. A bright color in garden or bouquet.

GIANT REGAL MIXED—A fine mixture of the above and others.

LAVATERA—Annual Mallow
 (a) Culture II, 2-3'
LOVELINESS—Large bowl shaped, rosy pink flowers all summer. Attractive bronzy foliage.

LINARIA—Baby Snapdragon
 (hp) Culture I, II, IV or VI

NORTHERN LIGHTS—About 15" high. Brilliant colors. Excellent quick-growing, cutting flower.

LINUM—Flowering Flax
 (a) Culture III, (hp), VI, 1-2'
SCARLET (a)—Bright red flowers in a constant succession all summer.

PERENNIAL BLUE (hp)—Low bushy plant blooming from spring to midsummer. Small, clear blue flowers in profusion.

LOBELIA
 (a) Culture I or V, 4"
CRYSTAL PALACE—Compact border plant with myriads of tiny bright blue flowers. For all low use, Pkt. 25c.

LOVE-IN-A-PUFF—SEE BALLOON VINE

LUPINE
 (hp) Culture III or VII, 3'
RUSSELL'S MIXED—Finest of all the lupines! Brilliant colors in long, strong spikes of pea-shaped flowers.

MALLOW, ANNUAL—SEE LAVATERA
MALLOW, ROSE—SEE HIBISCUS

MARIGOLDS
 (a) Culture I or II,

African
Tall Types 1 1/2-2'
MAMMOTH MUMS—Chrysanthemum-flowered, blooms in 2 1/2 months from seed. Deep sulphur yellow. 30 inches high.

REAL GOLD—Large carnation-like flowers in striking bright orange.

GLITTERS—All-American 1951—Clear yellow. Double. Bushy with long stem. Pkt. 25c.

YELLOW SUPREME—Light yellow, large flowers of carnation form.

SUNSET GIANTS—Huge dahlia-flowered strain. Lemon and gold.

MARIGOLD, Color Magic



ZINNIA, Persian Carpet

Annuals for QUICK COLOR

If you want lots of color quickly, bloom all summer and cut flowers by the armful, then annuals are the answer.

Annuals will grow anywhere, in practically any kind of soil. You'll get the biggest, brightest flowers when your plants get direct sunlight for about half the day. For best results, use plenty of plant food.

For early bloom, start the seed indoors and transplant. But, if you wait until after the danger of frost is over, choose some of the quick growing annuals and plant them right in the garden.

There are many beautiful combinations and varieties to give you a garden of color all summer long. Here are a few which are sure to give you enjoyment this year.

Antirrhinum or Snapdragon: A favorite in every garden. Comes in dwarf and all varieties in an almost full range of color.

Calendula: Masses of bloom. Orange and yellow.

California Poppy-Eschscholtzia: These provide a mass of color in orange, creamy white, carmine and pink.

Cosmos: Beautiful colors in crimson, pink, white and yellow.

Pansies: The old favorites. Come in almost any hue, blotched or pure.

Petunia: Rich purples, crimson, scarlet, all tones of rose and pink, white and an almost real yellow.

Phlox: Try the annual phlox for bedding or cut flowers. Scarlet, crimson, pale pink, deep yellow, white and amber.

Nasturtium: This versatile flower is a climber, bedding plant, or edger, dependent upon the variety. Its colors range from gold and pale yellow to a brilliant scarlet.

Cornflower-Centaurea or Bachelor's Button: Unexcelled for garden color and cuttings. Comes in blue, pink or red.

Marigold: Growing best in sunny places, its brilliant yellows and orange add flashy color to borders.

Zinnia: Always best and easiest annual to grow. Its range of color and size is unsurpassed and zinnias cut freely encourage continuous bloom.

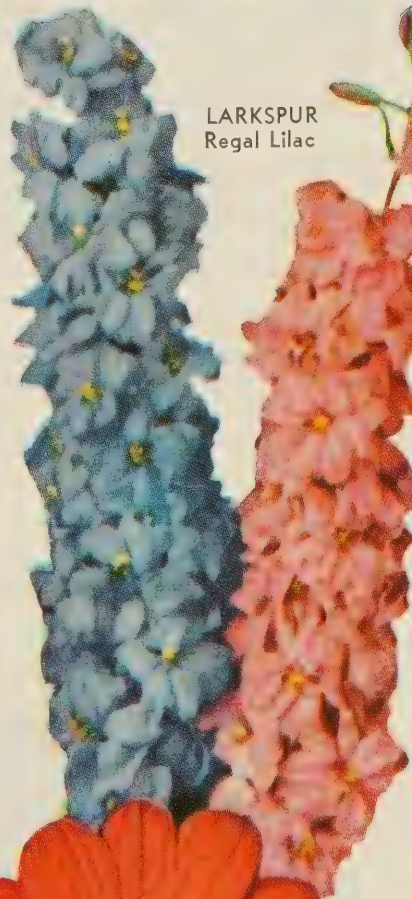
Sweet Alyssum: A popular edging plant, sometimes trailing. New All America winner this year is Royal Carpet, a rich purple counterpart to the white Carpet of Snow.

Ageratum: Good in borders, edgings, rock gardens or small beds. Blue, pink, white, deep purple.

Mignonette or Reseda: A low grower with tiny white blooms that are sweet scented.



MARIGOLD, Glitters



LARKSPUR
Regal Lilac



CELOSIA
Golden Fleece



TITHONIA,
Torch

MARIGOLDS, Continued

French

Double Dwarf Types, 1/2-1'

COLOR MAGIC—New—12 inch mounds covered with variegated colored flowers. An unusual cross in French Marigolds. Flowers are large and combinations are deep gold and henna red. Pkt. 25c.

MELODY—Foot high plants with loads of orange ball-like flowers.

SPRY—Compact plants with showy yellow flowers bordered with mahogany. Distinctive and showy.

SUNKIST—Compact plants with masses of golden orange blossoms. Pkt. 25c.

SCARLET GLOW—Compact, with bright red, 2" blooms. Reddest of all. Strikingly different.

Single Dwarf Types, 1-1 1/2"

FLASH—Plants have many 1 3/4" flowers in tangerine and red shapes. Pkt. 25c.

NAUGHTY MARIETTA—Open 2 1/2" flowers are rich gold with maroon at base of petals. Fine for edging. Pkt. 25c.

MIGNONETTE—Reseda

(a) Culture III, I'

Low grower with tiny, white blooms that are very sweet scented.

MIRABILIS—SEE FOUR O'CLOCKS

MORNING GLORY—Ipomea

(a) Culture III, V or VII, 12'

IPOMEA DARLING—Sky blue with five deep blue mid-ribs forming a star. Pkt. 25c.

HEAVENLY BLUE—Sky-blue flowers. Flowers close in bright sun. Exquisite on fences.

PEARLY GATES—A shining white form of Heavenly Blue.

SCARLETT O'HARA—Large velvety scarlet flowers. Very showy.

MIXED—Many lovely shades.

MOSS ROSE—SEE PORTULACA

MOURNING BRIDE—SEE SCABIOSA

ZINNIA TYPES

Reading clockwise: Harmony, Fantasy, Pumila, Double Giant, Gaillardia flowered, Little Red Riding Hood, Early Wonder.

NASTURTIUM

(a) Culture III or V

Dwarf or Bush Kinds 1'

GOLDEN GLOBE—Semi-double flowers of bright gold.

SCARLET GLOBE—Fiery scarlet double. Old-fashioned beauties.

MAHOGANY GEM—Deep velvet mahogany red double flowers.

GEM MIXED—All colors.

SINGLE MIXED—Complete mixture of all colors of well-known single type.

Tall or Vine Kinds 3-10'

GOLDEN GLEAM—Large golden flowers. Double and fragrant.

SCARLET GLEAM—Fiery orange scarlet flowers. Double and fragrant.

SALMON GLEAM—Delicate golden salmon double flowers.

GLORIOUS GLEAM—A mixture of all the colors of the Gleam series.

TALL SINGLE MIXED—The old single type in the tall growers. All colors.

NEMOPHILA—Baby Blue Eyes

(a) Culture II, 6"

Many cup-shaped sky-blue flowers on low spreading plant.

NICOTIANA—Flowering

Tobacco

(a) Culture I or II, 2-3'

SENSATION—Long-tube starry flowers. Fragrant at night. White or light pink mixed.

PAINTED TONGUE—SEE SALPIGLOSSIS

PANSY

(a) Culture I, II or VIII, 8"

SWISS GIANTS—Large flowering strain with fine range of gorgeous colors. Best of the improved pansies. Pkt. 35c.

TUFTED PANSY—SEE VIOLA
PERIWINKLE—SEE VINCA

PETUNIA

(a) Culture I or IV

Small Flowered, 10-14"

BALLERINA—All-American, 1952 winner of Honorable Mention—Bright. Deep rose fringed grandiflora type. Delicately fringed. Pkt. 50c.

BALCONY—Trailing kinds for use in window boxes and bedding. White, red, rose, or blue.

ENGLISH VIOLET—A fine purple-violet color. Spreading plant. Pkt. 20c.

FIRE CHIEF—Brilliant Red. Compact, and dwarf flowers profusely. Pkt. 25c.

FLAMING VELVET—A velvety blood red. Best of its color. Pkt. 20c.

LIPSTICK—A vigorous new petunia with an unusual glowing color. Plants are compact, early and free-flowering. Pkt. 25c.

ROSE OF HEAVEN—Best of the rose colored strains made famous by Rosy Morn. Color is slightly deeper and more uniform.

SILVER MEDAL—A lovely salmon. Good size flowers on compact plants. Pkt. 50c.

Large Flowered, 12-20"

AMERICA—Double carnation-like flowers of a deep rose pink. Pkt. \$1.00.

BURGUNDY—Huge single flowers of a rich wine red, white throat. Pkt. 20c.

COMANCHE—All-America Bronze Medal 1953. The reddest of red petunias, richer, brighter, more uniform scarlet red. Single flowers 2 1/2 to 2 3/4 inches in diameter. Grows about 13 inches high. Pkt. 50c.

GIANTS OF CALIFORNIA—Huge flowers of many fine pastel tints. Pkt. 25c.

LITTLE GIANTS MIXED—Compact plants with medium flowers in many new colors and shapes. Pkt. 25c.

SNOW STORM—Large plain glistening white flowers with creamy shading in throat. Very beautiful. Pkt. 25c.

THEODOSIA—Large ruffled flowers of deep rose pink with golden throat. Very showy and lovely. Pkt. 25c.

PHLOX

(a) Culture II, 8-12"

Lovely clusters of showy flowers on low plants from early spring on. Easily grown. Many splendid colors.

Art shades—Rosy Morn, Salmon Glory. 20c. Mixed.

PINKS—SEE DIANTHUS

PINCUSHION FLOWER—SEE SCABIOSA

POPPY

(a) Culture IV (hp) VI, 1 1/2-3'

GARTFORD—Pastel mixture. Long stemmed. Very rich. A most unusual giant flowering strain of poppy. Pkt. 35c.

ICELAND MIXED—Excellent perennial for borders, rock gardens. Large colorful, ferny foliage. Pkt. 20c.

ORIENTAL SCARLET—Huge red blooms in early summer from perennial root. Useful for bold color. Pkt. 20c.

SHIRLEY, MIXED—The easily grown, lovely annual poppy. Many bright colors. Grows easily and self-sows.

ZINNIAS Are Easy to Grow

Zinnias are so easy to grow that even if you've never gardened before, you'll have a bright cheerful garden all summer long with one packet of seed.

Here are a few simple rules to follow to insure a beautiful zinnia garden:

- 1—Buy good seed.
- 2—Wait until the soil is warm before you plant your seed.
- 3—Water young plants to keep them growing continuously.
- 4—Cultivate just enough to keep down weeds.
- 5—Cultivate shallowly so roots won't be injured.
- 6—Spray or dust plants if mildew appears.

HOME GARDENING GUIDE

FOR FLOWER GARDEN PLANNING

KEY—For classification of flowers by purpose, location, etc., see the second column below. The meaning of the key letters in this column follows:

A—For dry, hot locations	E—For edging.	I—For their fragrance.
B—For a succession of blooms.	F—For the rock garden.	J—For porch or window boxes.
C—For shady locations.	G—For their foliage.	K—Climbing vines.
D—For poor soil.	H—Everlasting for winter bouquets.	L—For backgrounds.

	Height (Inches)	Suitable for	Average Days to Germinate	Approx. Time of Bloom	Shape of Plant
Ageratum	4-12	E F J	5-10	10 Wks.	bushy
Alyssum, Sweet	2-12	B C D E F I J	5-10	6 Wks.	spreading
Antirrhinum	12-60	C I L	20-25	3-4 Mos.	bushy
Aquilegia	18-36	C E F	15	3 Mos.	branchy
Balsam	14-20	A E	10-12	6 Mos.	erect
Calendula	12-36	D	10-14	12-14 Wks.	bushy
Campanula	18-24	F	8-15	10-12 Wks.	bushy
Candytuft	6-18	B F I	5-10	8-10 Wks.	bushy
Centaurea	18-36	A B C D E I J	5-20	3-4 Mos.	erect
Chrysanthemum	24-36	A E	5-20	8-10 Wks.	bushy
Celosia	12-36	D E H	20-25	10 Wks.	bushy
Cosmos	36-60	A	5-15	10-12 Wks.	bushy
Coreopsis	18-36	A B D	10-20	4-5 Mos.	bushy
Dahlia, Dwarf	14	F	10	3-4 Mos.	bushy
Delphinium	36-72	L	15-21	3-4 Mos.	tall
Digitalis	30-48	F	10-20	3-4 Mos.	erect
Dianthus	4-15	F I	5-10	12 Wks.	bushy
Eschscholtzia	10-12	C D F	5-12	12-15 Wks.	bushy
Four O'Clock	24-30	A D	5-10	3-4 Mos.	bushy
Gaillardia	18-30	D	15-20	2-3 Mos.	bushy
Godetia	12-24	C D	15-20	2 Mos.	erect
Gypsophila	18-36	B H	15-20	8-10 Wks.	branching
Helichrysum	24-36	H	5-10	3 Mos.	bushy
Hollyhock	48-84	L	5-20	10 Wks.	slender
Kochia	30-36	A B	15-18	Foliage	bushy
Larkspur, Annual	30-72	L	15-20	10-12 Wks.	tall
Lathyrus	60-72	I K	25-40	2-3 Mos.	vine
Lobelia	4-8	E J	10	10-12 Wks.	bushy
Marigold	8-36	B J	5-8	6-8 Wks.	bushy
Mignonette	10-12	B I		3-4 Mos.	erect
Moon Flower	12 ft. or more	I K	5-8	4-5 Mos.	vine
Morning Glory	12 ft. or more	A K	5-8	3-4 Mos.	vine
Nasturtium	12-36	D E F K	8-15	2-3 Mos.	bush.vine
Nigella	10-18	B F	10-15	10-12 Wks.	bushy
Nicotiana	30-48	I	20-25	10-12 Wks.	branchy
Pansy	4-8	C E F	10-15	10-12 Wks.	clump
Petunia	10-24	D E F J	18-20	10-12 Wks.	bushy
Phlox	10-18	A B C F I J	20-25	8-10 Wks.	bushy
Poppy	18-36	B	20	12-15 Wks.	erect
Portulaca	4-6	A D E F J	18-20	6 Wks.	spready
Salvia	12-42	A	15-25	3-4 Mos.	bushy
Scabiosa	18-30	I	18-20	2-3 Mos.	bushy
Stocks	12-24	I	5-15	12-14 Wks.	bushy
Schizanthus	18-36	C E	20-25	6-8 Wks.	bushy
Sweet Pea	36 or more	K	15-20	10-12 wks.	vine
Sweet William	12-24	F	10	12 Wks.	bushy
Verbena	6-12	E F J	8-10	12 Wks.	spready
Wallflower	12-18	I	5-12	2-3 Mos.	bushy
Zinnia	12-36	A F	5-10	6-8 Wks.	bushy

POPPY, CALIFORNIA—SEE
ESCHSCHOLTZIA
POPPY, MEXICAN TULIP—SEE
HUNNEMANNIA

PORTULACA—Moss Rose

(a) Culture, III or IV, 6"

SINGLE, MIXED—Many brilliant colors.

DOUBLE, MIXED—All double. Pkt. 20c.

POT MARIGOLD—SEE CALENDULA

RICINUS—SEE CASTOR BEAN

SALVIA—Flowering Sage

(a) Culture I, 2-3'

AMERICA OR GLOBE OF FIRE—The well-known Scarlet Sage that is a blaze of vivid scarlet in summer. Pkt. 25c.

SALPIGLOSSIS—Painted Tongue

(a) Culture III, 30"

MIXED—Large petunia-like flowers of rich velvety colors, veined with gold.

SCABIOSA—Mourning Bride, Pincushion Flower

(a) Culture III or IV, 2'

CORAL MOON—New coral shade. Large double flowers on firm cutting stems. Pkt. 25c.

BLUE MOON—Large double flowers of deep lavender blue.

IMPERIAL GIANTS, MIXED—Large globe-shaped flowers in a wide range of red, white, coral rose and blue.

SATIN FLOWER—SEE GODETIA

SCARLET FLAX—SEE LINUM

SCARLET SAGE—SEE SALVIA

SCHIZANTHUS—Butterfly-Flower

(a) Culture II or IV, 1 1/2'

MIXED—Small flowers shaped like multi-colored butterflies. Delicate cut leaves. Free flowering.

SEA LAVENDER—Statice

(a) Culture I, 2'

MIXED—Small tubular flowers in colorful branching spikes.

SPIDER PLANT—SEE CLEOME

STRAW FLOWER—SEE EVERLASTING FLOWERS

SHASTA DAISY

(hp) Culture VI, 2'

ALASKA—Largest of the Shasta strains. Big, white flowers with yellow centers.

SNAP DRAGON—SEE ANTIRRHINUM

SNOW-ON-THE-MOUNTAIN—Euphorbia

(a) Culture III, 2'

Bright green foliage edged with white. Good for edging or contrast.

STOCKS—Gilliflower

(a) Culture I or IV, 1-2'

GIANT IMPERIAL—Excellent double flowers on tall stems. Many bright colors. Pkt. 25c.

BEAUTY OF NICE—Branching with double fragrant flowers.

DWARF TEN WEEKS—Low growing with strong spikes. Many fine colors.



Avoid the hourglass effect
in staking flowers



ALYSSUM, Royal Carpet
All America Silver Medal 1953

SWEET PEAS

(a) Culture III, 3'

EARLY SPENCER—Earliest of the many strains. Large colorful, fragrant blossoms. By variety or mixed.

LATE SPENCER—Large fine flowers that flower in early summer. By colors or mixed.



NASTURTIUMS, Gleam Hybrids

CUTHBERTSON—Hardy and heat resistant. Long-stemmed and rich colors. Coline (Scarlet)—Janet (White)—Lois (Rose Pink)—Danny (Navy Blue)—Frank G. (Rosy Lavender)—Mixed.

RUFFLED SPENCER—Wavy and ruffled petals. Many fine colors or mixed.

PERENNIAL SWEET PEA—Large vine and large flowers. Useful on trellis or fence. Not fragrant. Blooms all season. New stems yearly.

SUNFLOWER—SEE HELIANTHUS

SWEET SULTAN

(a) Culture II or IV, 2½'

MIXED—Lovely colorful thistle shaped flowers. Very easily grown.

SWEET WILLIAM—Dianthus Barbatus

(hp) Culture VI, 1½-2'

DOUBLE—Double flowers crown the heavy heads of many colors.

SINGLE—Lovely, single pinks in large flat clusters. Fine for cutting.

THRIFT—SEE ARMERIA
TICKSEED—SEE CALLIOPSIS



ZINNIA, Peppermint Stick

TITHONIA—Golden Flower of the Incas

(a) Culture I, 4'

TORCH—All American Silver Medal 1951—Fiery scarlet. Compact, upright, bushy. Pkt. 25c.

TRITOMA—Red Hot Poker

(p) Culture VI, 3-4'

PFITZER'S HYBRIDS—Narrow tubular flower on tall spikes, orange red. Graceful grassy foliage. Not perennial under some circumstances.

VERBENA

(a) Culture I, 8"

LAVENDER GLORY—Lavender with white eye. Large. Fragrant.

MAMMOTH WHITE—Large heads of pure white. Fragrant.

SCARLET—Flaming scarlet heads. Brilliant in beds.

BLUE SHADES—Medium and dark blues in mammoth type.

MIXED—Huge flower clusters, all colors. For beds and borders.

VINCA—Periwinkle

(a) Culture III, 15"

MIXED—Colorful starry flowers on glossy-leaved, bushy plants. Does well in shady spots.

VIOLA—Tufted Pansies

(hp) Culture VI, 6"

MIXED—Miniature pansies from neat plants. Flower all season. Many showy colors mixed.



PANSY, Swiss Giant

GARDENS FOR SHADE

Although few flowering plants will thrive in dense shade, where there is no sunlight at all, many of them will grow reasonably well. The average yard, however, has few spots which do not receive flickering sunlight some part of the day.

A good shade border garden could include Anemone, Cardinal Flower, Columbine, Pansy and Primrose. Dwarf Phlox and

Ferns make beautiful paths under trees and Violets will grow almost anywhere.

If your shady spots receive partial sun sometime during the day, plant a border of Snapdragons, Bachelor's Buttons, Phlox, Alyssum, Calliopsis, Campanula, Nasturtium and Petunia.

These seeds can be started in summer and transplanted: Ageratum, Calendula, Nicotiana, and Zinnias.

Don't expect masses of bloom, but enjoy each flower for its own beauty. The white varieties of any plant family will always do best in shady places. When a plant self-sows, it is an indication that the spot is to its liking. Whether it is your favorite flower or not, accept it, for it will thrive in its chosen location. Provide good drainage, as soil stagnation comes easily in dusky places. Lighten heavy earths with sand.

WALLFLOWER

(a) Culture I or V, 1½'

MIXED—Blood-red and yellow flowers. Resemble single stocks. Early and delightfully fragrant.

WILD FLOWER MIXTURE

(a) Culture II or III, ½-3'

Old fashioned flowers in a fine mixture for all season flowering. Sow thinly and enjoy continuous flowers and delightful surprises. These are not wild flowers of the fields but a selection of garden flowers that gives a "wild" garden look when planted in a border. A good way to get acquainted with some of the unusual kinds of garden flowers.

ZINNIA

(a) Culture I or II

Small Types, 12-18"

RED RIDING HOOD—Deep scarlet flowers 1" across. Free flowering. Fine border plant of Lilliput type.

PERSIAN CARPET—All American Honorable Mention 1952. Bi-colored. Rich deep tones of red and gold along with sunset shades. Medium-sized blooms on good cutting stems. Pkt. 25c.

LILLIPUT PASTELS—Lovely soft colors in the miniature strain. Fine for borders or small bouquets.

PUMILA SUNSHINE TINTS —

Dwarf plants with medium flowers in a wide range of delicate, soft colors.

SCABIOUS FLOWERED—Medium size flowers on a semi-tall plant. Resembles Scabiosa in shape. Bright colors mixed.

TOM THUMB MIXED — Lilliput type flowers on a very dwarf plant. For low borders and miniature displays.

FLORADALE SCARLET—A new and distinct Zinnia. Very uniform and true to type and color, Deep scarlet, slightly smaller than dahlia-flowered, with fluffy, but not twisted petals. Pkt. 25c.

Large Types, 2-2½'

SUPER CROWN OF GOLD PASTELS — New, improved, with many pastel colors overlying the golden base.

DAHLIA FLOWERED MIXED—Huge flowers in a bewildering range of bright and pastel colors.

GIANTS OF CALIFORNIA, MIXED—Mammoth flowers in many striking colors. Largest zinnias of all.

PEPPERMINT STICK—Bi-colored! Basic red flowers with white or yellow stripes. Pkt. 25c.



PETUNIA, Comanche

All America Bronze Medal 1953

**ALL PRICES
IN THIS CATALOG
ARE SUBJECT TO CHANGE
WITHOUT NOTICE**



MARIGOLD, Red Head



ASTER, Ballet



CARNATION, Chabaud's Enfants

PLANNING A ROCK GARDEN

When planning a rock garden, select only plants that appear at home among stones, and be sure that they are adapted to the locations you have chosen.

A good mixture of soil for your rock garden is one of equal parts of ordinary top soil, sharp sand and some kind of humus, preferably a rotted vegetable loam.

Drainage is important and for best results set each stone so that its top slants inward and down-

ward. Be sure to have deep pockets of earth between rocks for planting. Press soil well back under the rocks.

As a general rule your local stone should be used, even though it may not be ideal for the purpose. The reason being, that by using local stone there is less danger of constructing a garden that looks out of place in its setting. Weather-worn lime-

stone of irregular shapes is perhaps the most pleasing material for construction and easiest to work with.

Below are a few varieties of seeds suitable for your rock garden.

African Daisy, Alyssum, Arc-totis, California Poppy, Candy-tuft, Dianthus, English Daisy, Forget-Me-Not, Linum, Lobelia, Phlox (dwarf), Portulaca, Swan River Daisy and Statice.



Flower CULTURE

HOW TO GROW ALL THE FLOWERS LISTED IN OUR GARDEN ANNUAL

The numbers I to VIII, found with every flower listing refer to the following cultural notes which give directions for growing all of the flowers we list.

One of the important problems in the garden is that of maintaining a continuous show of bloom. This calls for the use of several different types of annuals, such as those that must be planted early to grow in cool weather. (Culture IV) and those which bloom later in summer heat (Culture I and II). If some of the cool-weather annuals from Group IV are sown in mid-summer and kept well watered, they will grow slowly until the cooler days of fall start them into more active growth. These will produce late flowers. Quick-growing annuals from Group II may also be sown at intervals for a succession of bloom during the summer.

Culture I

These flowers need a long season and must be started indoors if a full blooming period is to be had. If early bloom is not important, they will bloom later in the summer when sown directly in the garden. Some gardeners sow both ways to obtain a succession of flowers.

Culture II

These are the quicker-growing annuals that can be sown directly in the garden and will bloom in time to make a good display for most of the summer. If wanted especially early, they should be started as directed indoors in seed beds or flats. Some flower seedlings are rather delicate. Extra care in preparing the seed bed will pay dividends in better plants. Prepare soil with a liberal amount of mixed fertilizer and organic matter and dig it in. Rake the surface until it is smooth and pulverized. Sow the seed at a depth equal to three times the diameter of the seed. Fine seed can be spread on the surface and pressed in without covering. Keep soil moist by light spraying until the seedlings have formed the first true leaves. When they are large enough to handle, they may be transplanted to other parts of the garden.

Culture III

These flowers do not transplant well. They should be planted where they are to bloom,

Sow as soon as the weather begins to warm in the spring. Otherwise the culture is the same as II. Sow seed thinly or remove the smaller plants after they are up. These can be handled as pot-grown plants as in Culture VII.

Culture IV

These flowers are unusually hardy annuals that can withstand very cool weather. They are often sown late in fall so they can start growing the first warm days of spring. If not sown in the fall, they should be planted as early in the spring as possible. Fall sowing gets the seeding job out of the way before the spring rush.

Culture V

These flowers, while garden subjects, are also useful for winter-flowering house plants. For garden use, handle as in Culture II. For winter flowering indoors, plant fairly late in the season and transplant into small pots as soon as they are large enough. Keep moving them to larger pots as roots fill the soil until they are finally in six-inch pots. Annuals in pots should have at least six hours of direct sunlight daily if they are to flower.

Culture VI

Perennials can be seeded at almost any time of the year. Best periods are early in the spring or in early summer when the rush of spring work is over. A cold frame or sheltered bed which can be shaded from the direct sun is best. Prepare soil thoroughly with plenty of organic matter. A loose, friable soil will produce a thick mat of roots so that the seedlings will transplant more easily. Perennial seedlings are rather weak growers needing extra care. In covering the drills in which the seeds are sown, use either pure, clean sand or a mixture of half sand and half peat moss. This prevents packing of the soil over the seeds. Always water with a fine spray.

As soon as the second leaves form, seedlings may be transplanted into their permanent position. Or, if more convenient, they may be left in the seed bed until the following spring. Under this culture, only a few species will bloom the first year and they will not produce normal flowers until the following year. Planting earlier does increase the chances for flowers the first year. But, if it is more convenient, Culture I may be used. Delphinium seed is often started

in August to take advantage of the cooler nights for the seed will not grow when the soil temperature is above 77 degrees.

Culture VII

These varieties need a longer growing season than can be given them outdoors. And because they do not transplant well, they must be started in pots and set out without disturbing the roots. Otherwise Culture is the same as I. The use of plant bands allows you to set the seedlings out without disturbing the roots. The bands soon rot away and the seedlings will grow as though started in the garden.

If clay pots are used, the excessive drying can be avoided by placing the pots in a flat and filling the space between them with damp peat moss or vermiculite. Be sure to keep this material moist or it will draw moisture from the pots.

Culture VIII

These flowers are biennials. They make a leafy growth the first year but do not flower. The leafy growth of the first year forms food for blooming the following year. The flowers appear the second year and then the plant dies.

This means that a continuing show from biennials must be provided by starting new plants every year to replace those that are flowering.

Biennials are handled in the same way as perennials except that they are started early in the spring to allow the plant to store as much food as possible for the next year's bloom.

Many gardeners start biennials in the vegetable garden or special starting bed and then transplant the ones needed to the flower garden the following spring. During winter, biennials should be given the same treatment as perennials.

Pansies are tender perennials that are treated as annuals or biennials. When grown as annuals, they should be started indoors about six weeks before time for planting out in early spring. When grown as biennials, the seed is started in late summer and the plants carried over winter in protected spots where extremes of temperature and moisture are avoided. Mulching or the use of frames may be necessary in your particular garden. Pansies do best under conditions of constant, moderate moisture, partial shade and a humus-rich soil. Pinching off old flowers will prolong the flowering season.

THE INSECTS THAT ATTACK Your Garden

To know HOW to fight insect pests you first have to **RECOGNIZE** them. The pictures below will help you in identifying the various sucking and chewing insects which will attack your garden. The following list tells you the vegetables and the insects which most commonly attack them.

ASPARAGUS—The Asparagus Beetle.
BEANS—Mexican Bean Beetle Aphids. Leaf Hoppers. Red Spider Mites.
BEETS, CHARD and SPINACH—Aphids. Spinach Flea Beetle. Spinach Leaf Miner.
CABBAGE, CAULIFLOWER, BROCCOLI, BRUSSELS SPROUTS—Cabbage Worm. Cabbage Looper. Root Maggots. Aphids.

CARROTS, CELERY—Carrot Weevil. Leaf Tyers.
CORN—Corn Borer. Ear Worm.
CUCURBITS (VINE PLANTS)—Melon Aphid. Striped Cucumber Beetle. 12 Spotted Cucumber Beetle. Squash Vine Borer. Squash or Stink Bug.
ONIONS—Thrips. Onion Maggot.



A PORTRAIT GALLERY OF GARDEN ENEMIES SUCKING INSECTS



GLADIOLUS THRIP, 1/16"



BEET LEAF HOPPER, 1/8"



CHINCH BUG, 3/16"



TARNISHED PLANT BUG, 1/4"



RED SPIDER MITE, 1/60"



MELON APHID, 3/32"



CABBAGE APHID, 1/32"



SQUASH BUG, 5/8"

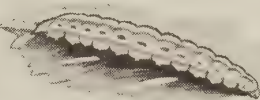
CHEWING INSECTS



ASPARAGUS BEETLE, 7/32"



ROOT MAGGOT, 1/3"



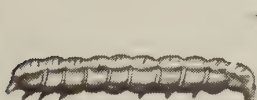
CABBAGE WORM, 1"



STRIPED CUCUMBER BEETLE, 1/4"



SPOTTED CUCUMBER BEETLE, 1/4"



CUT WORM, 3/4" - 1"



SQUASH VINE BORER, 1/2"



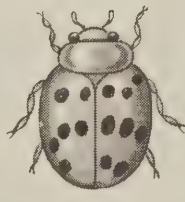
TOMATO HORN WORM, 3" - 4"



POTATO BEETLE, 3/8"



FLEA BEETLE, 1/16"



MEXICAN BEAN BEETLE, 5/16"



CORN BORER, 1"



CODLING MOTH, 1/2" - 3/4"



CABBAGE LOOPER, 1 1/2"



CARROT WEEVIL, 1/4"



CORN EAR WORM, 1/4" - 1 1/2"

LETTUCE—6 Spotted Leaf Hopper.
PEAS—Pea Aphid.

POTATO, TOMATO, EGGPLANT, PEPPER—Aphid. Colorado Potato Beetle. Flea Beetle. Leaf Hopper. Tomato Horn Worm. Tomato Fruit Worm. (This is the corn ear worm.) Cut worm.

WHAT THEY DO

APHID—Sucks. Colors and sizes varied. Found on under side of leaf and on stems. Soft-bodied, wingless—also with long, narrow transparent wings 3 times as long as its body. Causes discoloring or curling of leaves.

ASPARAGUS BEETLE—Gnaws shoots and feeds on foliage.

MEXICAN BEAN BEETLE—Chews. 8 black spots on each wing. Spiny larvae skeletonizes leaves.

CABBAGE WORM—Velvety green with yellow stripes. Chews holes in leaves.

CABBAGE LOOPER—Pale green with white stripes along sides. Chews.

COLORADO POTATO BEETLE—Lays yellowish orange eggs in groups of 20-30 on underside of leaves. 5 yellow and 5 black stripes on each wing. Chews.

CUCUMBER BEETLE—Yellow with 3 black stripes on back. Chews.

CUT WORM—Cuts off plants at soil level. Found within 8"-10" radius of plant, about an inch below ground surface. Dull colored, variably-striped. Curled up. Chews.

CARROT WEEVIL—Chews. Legless, brown headed grub. Tunnels into crown of plant, filled with a sawdust like material or sealed up with black exudate to hide eggs.

CODLING MOTH—Pinkish white, brown-headed worms eat holes from side or blossom end of apple to core.

CORN BORER—Chews. Found on under side of leaves. Flat masses of pearly white eggs, overlapping like scales and pinkish worms 1" long with dark heads.

CORN EAR WORM—Chews. Green to brownish, with white stripes along sides. Found in silk end of ear.

FLEA BEETLE—Chews. Shiny, black, round beetle. Chews sieve-like holes.

LEAF-HOPPER—Sucks. Found on under side of leaves. Pale green. Slender winged, wedge shaped. Gives leaf tips scorched appearance, puckering.

TOMATO HORN WORM—Chews. Large green worm with yellow markings and prominent horn-like projection at rear.

THRIPS—Sucks. Tiny yellow or brownish slender bodied, pointed at both ends. Narrow plume-like wings. Nymphs wingless, same size and shape, but watery white with bright red eyes.

ROOT MAGGOT—Chews. Causes pale yellowish green plants that wilt and die. Check dirt at roots for white legless worm or elongated white eggs.

RED SPIDER MITE—Sucks. Found at apple blossom time on under side of leaves. 8 legged, very tiny, reddish, whitish, greenish mite. Causes yellow or brown blotches on leaves with powdery appearance on under side.

SQUASH OR STINK BUG—Sucks. Egg clusters of 25-50 reddish brown eggs found on under side of leaves. Bug flat, brownish and stinking.

PLANT BULBS FOR *Permanence*

(see chart at bottom of the page), for shallow planting causes much failure in successful bulb growth. In preparing the planting pocket for your bulbs, be sure the bottom is broad enough to permit the bulb case to rest on the soil. If an air pocket is left, the roots are quite likely to dry out before the bulb has started its growth.

DAHLIAS

Soil needs of dahlias are no different than those of a good vegetable garden. Drainage and porosity are important.

Fertilizing calls for nothing more than a good balanced commercial fertilizer.

Planting is simple. Set stout stakes first. Plant the tuber in a hole 6 inches deep, with eye up, and neck near stake. Cover with just enough soil to hide the tuber. As the eye grows, keep filling in soil.

Depth of planting should be no more than 4" in heavy soil and 5 to 6" in light, sandy soil. Planting Glad bulbs too shallow in light soil will cause them to topple over or grow at bad angles. Space bulbs 3" apart in rows 18 to 30" apart. Be sure to eliminate air pockets under the bulbs.

Allow only one main stalk to grow. When stalk is about 10 inches high, pinch out the center just above the 2nd pair of leaves. When buds appear, pinch out all except the central one. Also pinch out all new lateral shoots except the two nearest the main stalk. This helps produce large blooms on low, bushy plants and encourages long stems.

FANCY LEAVED CALADIUMS

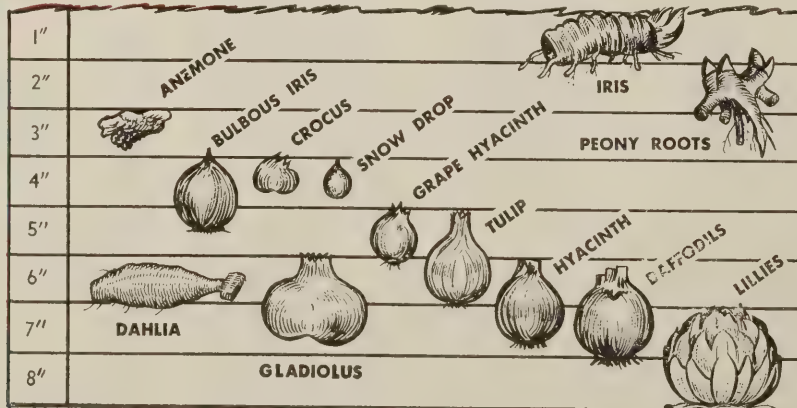
These spectacular foliage plants are particularly valuable because they do well in shade. Start them in a mixture of half sand and half leaf mould at a temperature of over 70 degrees. When the roots are well-developed and the shoot is beginning to show, pot up in rich soil. Set out in the garden when weather is warm.

LILIES

Even the swamp lilies will not tolerate wet feet; all must have perfect drainage. Yet they like a moist, cool soil. This means that liberal quantities of old well-decayed compost is almost essential.

CANNAS

While cannas will tolerate cold soil, they usually do not start growing until hot weather comes. If planted in round beds, you will need 37 plants for a 10 foot bed (18 plants on the outside, 12 in the second row, six for the third row and one in the center). A 7 foot bed will use 119 plants, with 12 plants on the outside row, six for the middle row and one in the center.



Gladiolus thrips, mice, moles and rabbits are all enemies of your bulbs.

Leafhoppers carry disease and injure the plant by sucking the juice from leaves and stems.

Thrips can destroy your bulbs, even when stored. Ask us about our many good preparations to control these pests.



Bulbs AND TUBERS

CAREFULLY SELECTED FOR
SPRING PLANTING

DAHLIAS

(I.D.: Informal Decorative.
F.D.: Formal Decorative.)

- A. D. LIVONI**—(Show Type) Beautiful shade of deep pink, free flowering.
- AVALON**—(F. D.) A fine garden variety. Rich large lemon-yellow blooms.
- COMMANDO**—(F. D.) Clear shade of deep lavender. One of the finest.
- GALLANT FOX**—(F. D.) Brilliant dark red.
- JANE COWL**—(I. D.) Lovely buff and old gold shading to a salmon center.
- JERSEY'S BEAUTY**—(F. D.) Glorious clear pink. One of the finest ever produced.
- MAUDE ADAMS** — (Show Type) White blending to rose pink.
- MRS. I. DE VER WARNER**—(F. D.) A beautiful orchid pink. Lovely large flowers.
- MICHIGAN WHITE** — (Semi-Cactus) Prolific blooming cutflower. Pure white.
- MINIATURE DAHLIAS**—Lovely 3 to 4 inch blossoms just like the large ones.
- POMPON DAHLIAS** — Charming "button" dahlias that require little care.
- ROSY DAWN**—(Ball type) Rose and yellow.

CANNAS

- KING HUMBERT** — (Orchid-flowering). Orange-scarlet with bright red markings.
- PRESIDENT**—Bright red clusters.
- HUNGARIA**—Large dainty rose-pink.
- WINTZER'S COLOSSAL**—Vivid scarlet.

CALADIUM

- FANCY-LEAVED**—Rich ornamental leaves marked, veined white, pink and red.
- ELEPHANT'S EAR**—Huge green leaves.

FALL BULBS

for
Spring Flowering

CROCUS

DAFFODILS

HYACINTHS

IRIS

NARCISSUS

SCILLAS

SNOWDROPS

TULIPS

We offer the finest selection of bulbs of all kinds. For spring and fall planting. Excellent, healthy bulbs especially selected for their hardiness of strain and beautiful blooms.

GLADIOLUS

- BIT 'O HEAVEN**—Orange with yellow throat. 9 to 12 medium blooms on tall spike.
- BLUE BEAUTY**—Light blue, edges of petals lined with violet blue.
- BURMA**—Deep reddish rose. Heavily ruffled blooms on a straight spike.
- ELIZABETH THE QUEEN** — Large mauve-ruffled flowers with dark lines in the throat.
- GOLD DUST**—Large. A fine soft clear early yellow. Opens 5 to 6 blooms at a time.
- KING LEAR**—Clear deep reddish purple with silver line on edge of petals.
- LEADING LADY**—Cream white. Very large florets on tall spikes.
- MARGARET BEATON**—Huge white florets, small vermilion blotch.
- MARGARET FULTON**—Medium. Clear soft dark salmon. 6 to 8 florets.
- MISS WISCONSIN** — Brilliant rose-pink. Opens to 8 large blooms.
- PICARDY**—Giant. Soft shrimp pink with a blotch of light flesh pink.
- RED CHARM** — Deep sparkling scarlet, deeper in the throat. 7 to 8 blooms.
- ROSA VAN LIMA**—Light rose pink. Excellent grower.
- SILVER WINGS** — Creamy white, Ruffled florets.
- SPIC and SPAN**—Tall ruffled deep pink. Salmon shading.
- SNOW PRINCESS**—New fine white of good size and form. Stems never crook.
- SPOTLIGHT**—Large. Clear deep yellow with small scarlet blotch in throat.
- TIVOLI**—Soft rose-pink, lighter in throat. 8 to 10 large florets, tall stem.
- VAGABOND PRINCE** — Mahogany brown. Small blotch of glowing flame on lip.

CACTUS DAHLIA



DAHLIA
Formal Decorative



POMPON DAHLIAS

How To Care For GARDEN TOOLS



A well kept tool makes any job easier and gives better results. The little time spent is amply repaid by long life and good service.

Don't sharpen **digging tools** too thin as this will cause them to nick easily.

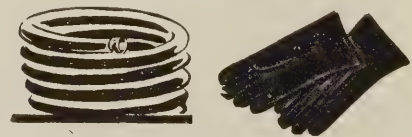


Cutting tools should be sharpened with a thin blade, after sharpening a blade to a very fine edge, put it across a piece of wood to remove the feather edge.

Clean your spade at the end of each day's use. Dirt left on a spade is worse than rust. An oily rag may be run over blades and handles and the metal parts rubbed dry and clean with a rag.



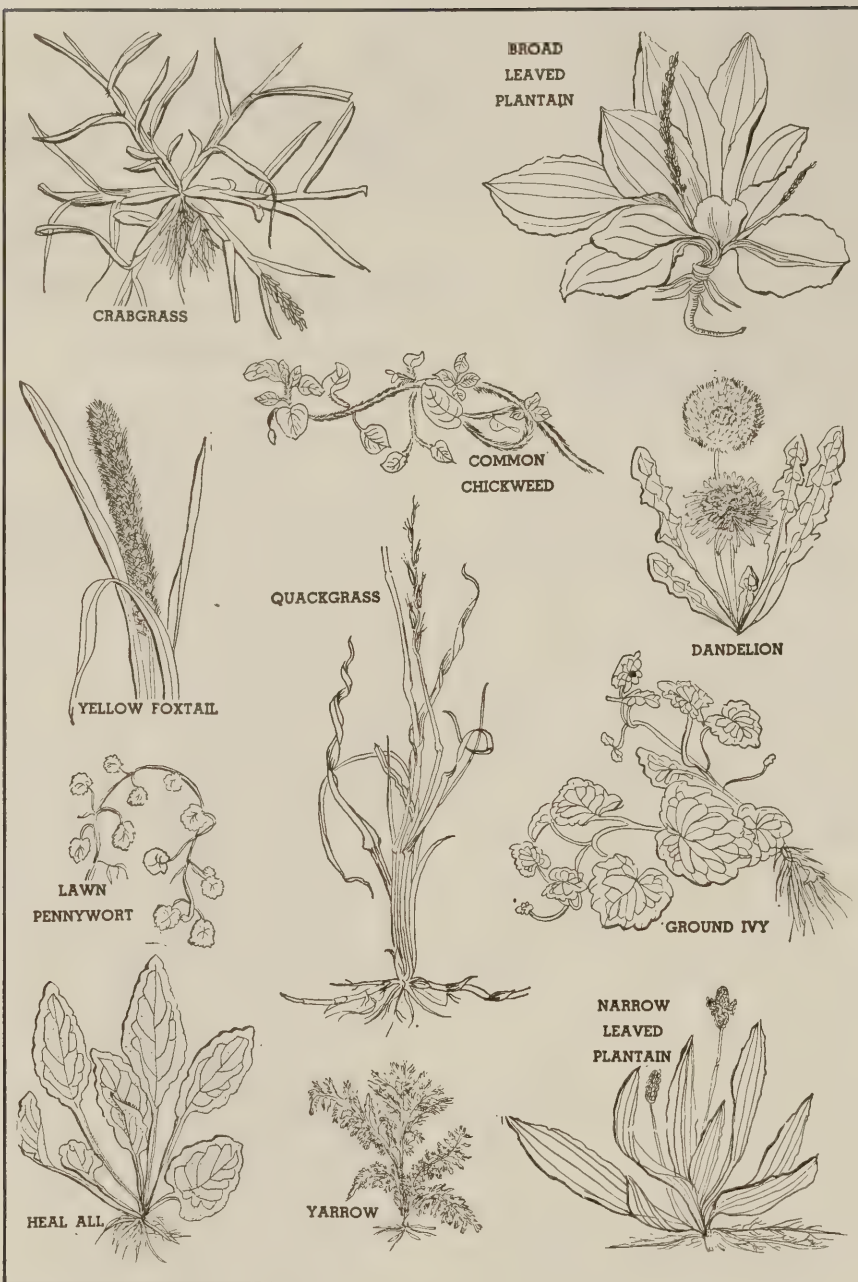
Hang tools up, each in its place, when not in use. Handles are roughened and edges dulled if tools are not placed in special racks. Brooms and brushes soon become crooked if allowed to rest on the bristles.



The garden hose should **not be left outside**, especially in the sun. It should be coiled or preferably mounted on a reel on wheels.

Keep your **garden gloves** clean and soft, never allowing them to become caked or crusted with dirt.

**ALL PRICES
IN THIS CATALOG
ARE SUBJECT TO CHANGE
WITHOUT NOTICE**



WEEDS THAT INFEST YOUR LAWN

CRABGRASS—Annual. Spreads by seeds. Mow often at 1½ inches. Hand pick young seedlings. Feed lawn heavily in the fall.

BROAD LEAVED PLANTAIN—Perennial. Use hormone-type weed killer in late summer or drop acid or gasoline in centers of rosettes.

YELLOW FOXTAIL—Annual. Must be cultivated frequently. Use chemical weed killer.

DANDELION—Annual spread by seeds and from the crown. Cut below crowns any time of the year. Drop gasoline in crowns. Spray with hormone-type weed killer.

LAWN PENNYWORTH—Perennial. Seeds are distributed by lawnmower and rake. Must be dug out and ground reseeded or sodded.

QUACK GRASS—Perennial. Spreads by creeping, jointed rootstalks. Smother with mulch or remove all visible shoots three times a week as long as they show.

GROUND IVY—Perennial. Dig out or spray with a sodium chlorate solution.

HEAL-ALL—Perennial, especially bad in shady lawns. Roots at nodes and spreads by seeds. Cut out by hand or spray with hormone-type weed killer after bluegrass is dormant.

YARROW—Perennial. Cut back repeatedly or dig out. Spray lawn with sulphate of iron.

NARROW LEAVED PLANTAIN—Perennial. Prolific seeder. Cut off tops, pierce a hole in the crown of the root and apply a few drops of carbolic acid or sodium chlorate.

MOON PLANTING GUIDE

Phases and Positions of the Moon in 1953

For time immemorial many farmers and gardeners have timed their planting and weeding by the four phases of the moon and its passage through the belt of twelve constellations which comprise the zodiac. For the benefit of those who use this method to guide

their planting times we show here all the necessary information generally shown in more voluminous arrangements. We cannot vouch for the effectiveness of this method, but we are glad to provide these complete up-to-date tables for those who want them in 1953.

Signs of the Zodiac and Their Accepted Influences

♈ **ARIES:** Tends to dryness, barrenness. Fairly good for cultivating, spraying and weeding.

♉ **TAURUS:** Fairly productive. A good sign for planting root crops particularly potatoes and bulbous plants.

♊ **GEMINI:** Dry and barren. Not good for any kind of planting or transplanting. Kill noxious growths.

♋ **CANCER:** Moist, very fruitful, most productive of the Zodiac. Planting and transplanting should yield good crops. Irrigate, bud, graft, transplant.

♌ **LEO:** Most dry and barren sign. Use only to kill weeds, destroy roots, etc.

♍ **VIRGO:** Moist but barren. Not recommended for planting or transplanting; good for cultivating and destroying.

♎ **LIBRA:** Fairly fruitful. Seed for hay, corn, fodder, etc. Produces vigorous pulp growth, reasonable amount of grain. Good for flowers.

♏ **SCORPIO:** Next to Cancer in productivity. Irrigate but do not dig potatoes.

♐ **SAGITTARIUS:** Generally considered barren but used by many for onions, seeding for hay, destroying weeds, etc.

♑ **CAPRICORN:** Earthly, fairly productive. Similar to Taurus but drier. Bulbous flowers, potatoes, tubers, root crops.

♒ **AQUARIUS:** Somewhat barren. Good only for cultivation and extermination of pests.

♓ **PISCES:** Similar to Cancer so use for same purposes. Very productive. Do not dig potatoes.

When to Plant

The tables at right show when the moon enters each sign of the Zodiac. It also shows the moon's changes.

Under each month, we show first the time at which the moon enters each SIGN (day of the month and hour of the day, Central Standard Time). Then we show the moon CHANGES (day and hour) for each month.

1st QUARTER, MOON INCREASING

—During 1st Quarter of Moon plant the following: Asparagus, Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Celery, Corn, Cucumbers, Endive, Kohlrabi, Leeks, Lettuce, Spinach, Barley, Oats, Rye, Wheat.

2nd QUARTER, MOON INCREASING

—During 2nd Quarter of Moon plant the following: Beans, Egg Plant, Melons, Peas, Peppers, Pumpkins, Squash, Tomatoes, flowers, and cereals.

When possible, plant seed while the Moon is in the fruitful signs of Cancer

(♋), Scorpio (♏), or Pisces (♓). The next best signs are Taurus (♉), Libra (♎), and Capricorn (♑).

3rd QUARTER, MOON DECREASING

—During 3rd Quarter of Moon plant the following: Beets, Carrots, Chicory, Parsnips, Potatoes, Radishes, Rutabagas, Onions, Turnips, Tubers.

4th QUARTER, MOON DECREASING

—In 4th or Last Quarter of the Moon turn sod, pull weeds, and destroy noxious growths, especially when Moon is in barren signs, Gemini (♊), Leo (♌), Virgo (♍) or Aquarius (♒).

NOTE: All times shown below are Central Standard time.

JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
1 ♌ . 3:20p 4 ♏ . 3:42a 6 ♎ . 6:35p 9 ♍ . 3:42a 11 ♋ . 11:09a 13 ♊ . 2:51p 15 ♏ . 3:55p 17 ♎ . 4:08p 19 ♍ . 5:12p 21 ♌ . 8:25p 24 ♏ . 2:24a 26 ♎ . 11:09a 28 ♍ . 10:08p 31 ♋ . 10:37a	2 ♋ . 11:31p 5 ♏ . 11:19a 7 ♋ . 8:16p 10 ♊ . 1:28a 12 ♎ . 3:15a 14 ♌ . 1:22a 16 ♍ . 2:33a 18 ♋ . 3:53a 20 ♏ . 9:21a 22 ♎ . 4:51p 25 ♌ . 4:06a 27 ♍ . 4:51p	2 ♎ . 5:40a 4 ♏ . 5:28p 7 ♋ . 3:19a 9 ♊ . 10:07a 11 ♎ . 1:33p 13 ♌ . 2:14p 15 ♍ . 1:40p 17 ♋ . 1:48p 19 ♏ . 4:41p 21 ♎ . 11:33p 24 ♌ . 11:16a 26 ♍ . 11:04p 29 ♋ . 11:50a 31 ♏ . 11:17p	3 ♋ . 8:56a 5 ♊ . 4:25p 7 ♎ . 9:24p 9 ♌ . 11:46p 12 ♍ . 0:18a 14 ♋ . 0:33a 16 ♏ . 2:30a 18 ♎ . 6:55a 20 ♊ . 5:30p 23 ♍ . 5:52a 25 ♋ . 6:38p 28 ♏ . 5:52a	1 ♋ . 2:49a 3 ♊ . 9:52a 5 ♎ . 3:11a 7 ♌ . 6:45a 9 ♍ . 8:48a 11 ♋ . 10:13a 13 ♏ . 0:30p 15 ♎ . 5:22p 18 ♊ . 1:49a 20 ♍ . 3:29p 23 ♋ . 2:51a 25 ♌ . 1:29p 27 ♋ . 10:05p 30 ♊ . 4:15a	1 ♎ . 8:44a 3 ♌ . 0:11p 5 ♍ . 2:48p 7 ♋ . 5:42p 9 ♏ . 9:06p 12 ♎ . 2:20a 14 ♌ . 10:29a 16 ♍ . 9:39p 19 ♋ . 10:16a 21 ♏ . 9:54p 24 ♋ . 6:47a 26 ♊ . 10:15a 28 ♎ . 3:50p 30 ♌ . 6:08p
Changes ♌ 8 . 4:09a ♍ 15 . 8:08a ♎ 21 . 11:43p ♏ 29 . 5:44p	Changes ♋ 6 . 10:09p ♌ 13 . 7:10p ♍ 20 . 11:44a ♎ 28 . 0:59p	Changes ♎ 8 . 0:26p ♏ 15 . 5:05a ♋ 22 . 2:10a ♌ 30 . 6:55a	Changes ♋ 6 . 10:58p ♌ 13 . 2:09p ♍ 20 . 6:45p ♎ 28 . 10:20p	Changes ♋ 6 . 6:20a ♌ 12 . 11:06p ♍ 20 . 0:22p ♎ 28 . 11:03a	Changes ♋ 3 . 10:22p ♌ 11 . 8:55a ♍ 19 . 6:02a ♎ 26 . 9:39p
JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
2 ♍ . 8:25p 5 ♌ . 4:33a 7 ♏ . 3:43a 9 ♎ . 9:56a 11 ♍ . 6:31p 14 ♋ . 5:28a 16 ♎ . 6:03p 19 ♏ . 6:16a 21 ♋ . 3:53p 23 ♊ . 10:01p 26 ♎ . 1:00a 28 ♌ . 2:06a 30 ♍ . 2:57a	1 ♋ . 4:58a 3 ♏ . 9:12a 5 ♎ . 4:03p 8 ♌ . 1:17a 10 ♍ . 0:35p 13 ♋ . 1:08a 15 ♏ . 1:41p 18 ♋ . 0:26a 20 ♊ . 7:51a 22 ♎ . 11:25a 24 ♌ . 0:10p 26 ♍ . 11:47a 28 ♋ . 0:13p 30 ♏ . 3:11p	1 ♎ . 9:33p 4 ♌ . 7:05a 6 ♍ . 6:48p 9 ♋ . 7:27a 11 ♏ . 8:23p 14 ♋ . 7:31a 16 ♊ . 4:16p 18 ♎ . 9:24p 20 ♍ . 11:03p 22 ♍ . 10:30p 24 ♋ . 9:48p 26 ♏ . 11:05p 29 ♎ . 3:59a	1 ♌ . 0:56p 4 ♏ . 0:41a 6 ♎ . 1:28p 9 ♍ . 1:55a 11 ♋ . 1:16p 13 ♊ . 10:48p 16 ♎ . 5:33a 18 ♌ . 8:52a 20 ♍ . 9:26a 22 ♋ . 8:47a 24 ♏ . 9:07a 26 ♎ . 0:29p 28 ♌ . 7:59p 31 ♍ . 9:06a	2 ♋ . 7:50p 5 ♏ . 8:11a 7 ♋ . 7:04p 10 ♊ . 5:18a 12 ♎ . 11:28a 14 ♌ . 4:13p 16 ♍ . 6:32p 18 ♋ . 7:15p 20 ♏ . 7:57p 22 ♎ . 10:36p 25 ♌ . 4:42a 27 ♍ . 2:43p 30 ♎ . 5:07a	2 ♏ . 3:28p 5 ♋ . 2:06a 7 ♊ . 10:32a 9 ♎ . 4:57p 11 ♌ . 9:43p 14 ♍ . 3:21a 16 ♏ . 5:27a 20 ♎ . 8:42a 22 ♌ . 2:27p 24 ♍ . 11:27p 27 ♋ . 11:11a 29 ♏ . 11:41p
Changes ♌ 10 . 4:04p ♍ 18 . 8:31p ♎ 18 . 10:43p ♏ 26 . 6:19a	Changes ♋ 1 . 9:19p ♌ 9 . 10:10a ♍ 17 . 2:03p ♎ 24 . 2:21p ♏ 31 . 4:46a	Changes ♎ 8 . 1:47a ♏ 16 . 3:49a ♋ 22 . 10:15p ♌ 29 . 3:57p	Changes ♋ 7 . 6:40p ♌ 15 . 3:39p ♍ 22 . 6:56a ♎ 29 . 7:08a	Changes ♋ 6 . 11:58a ♌ 14 . 1:48a ♍ 20 . 5:12p ♎ 28 . 1:54a	Changes ♋ 6 . 4:48a ♌ 13 . 10:29a ♍ 20 . 5:43a ♎ 27 . 11:44p



BROCCOLI, Italian
Green Sprouting

PEPPER, Pimento

**Our Seeds
give the
Highest Yield**

HOW TO GROW BETTER VEGETABLES

KEY POINTS

Divide your garden into three sections if possible. Root vegetables, leaf vegetables, fruit vegetables.

By switching these three crops every year you avoid many soil-borne diseases and insects and you get better use of your fertilizer. This isn't absolutely necessary, but it is one of these details that a smart gardener watches.

On level ground you can run rows either east and west or north and south. If east-and-west layout is used, be sure to plant taller vegetables to the north. On sloping ground, the rows must run across the slope, not up and down. Otherwise all of your plant food will go down the hill when it rains.

Plan to use your garden full time. To do this, you'll need catch crops, intercrops (companion crops) and succession crops. **Catch crops** are early vegetables like spinach, that you grow very early before a crop like late cabbage is set out. **Intercrops** are planted between the rows of larger vegetables, like head lettuce between rows of Broccoli. Succession crops follow early crops. For instance, Chinese cabbage will mature fine heads if planted after a crop of peas has been taken off.

For the world's greatest bargain, grow your own vegetables. You get dollars for pennies, with a lot of healthy fun thrown in free when you grow your own vegetables. Where else can you get so much for so little?

And besides, no vegetables you buy at the store ever taste so good—or **are** so good for you, because vegetables begin to undergo a change, almost as soon as they are picked. Inevitable natural processes quickly alter their flavor, texture and vitamin content. That's why there's no substitute for garden-fresh vegetables.

FIRST, PLAN IT ON PAPER

The best way to start your garden is to plan it on paper first. This way you can get the best food with the least amount of time. Start with a rough sketch. Try all of your ideas in combination on this rough sketch. When you have what you want, convert your rough sketch into a final plan, drawn to scale. A scale of one-quarter of an inch representing one foot works very well, because by using one sixteenth of an inch as three inches, almost any standard spacing of the rows can be shown in exact scale.

THE BEST SEED IS YOURS IN OUR STORE

Every item of garden seed in this book is good seed—the very finest quality to be had anywhere, at any price.

You may be able to buy your garden seed cheaper, but you simply can't buy better seed than we offer here.

Every lot is carefully selected from the best offerings of the best growers.

Another good thing about our seed is its fitness for this area. We know local soils and local weather conditions—and we select our seeds to meet these particular conditions. There are plenty of gardening risks you can't avoid,

so why take unnecessary risks? The seed business is a highly technical specialty. It demands years of experience—endless vigilance—constant contact with many markets. That's why only seed specialists can serve you safely.

We are seed specialists of long experience. Our business life depends upon the quality and honesty of the seed we sell you! Your garden future is safe in our hands.

Drop in. Talk it over with us. Our knowledge and experience are yours for the asking.

GEO. KELLER & SONS

909 MAINE STREET

QUINCY, ILLINOIS

Vegetable SEEDS

LETTUCE,
Salad Bowl
1952 GOLD MEDAL

From among all the thousands of available varieties, we have selected those which will produce the best quality and the greatest yields in the gardens of our territory. So we offer you this compact selection as a safe, sound base for your plans.

VEGETABLES FOR FREEZING

The Symbols (tr) following the variety names indicates vegetables suitable for home freezing

ASPARAGUS

A hardy perennial; will bear over 20-year period if properly cared for. We recommend purchase of **ASPARAGUS ROOTS** rather than seeds, as roots produce crop 2 years earlier. If seed is used, sow thinly in drills in early Spring. Cover to $\frac{1}{2}$ " depth. Soak seed 24 hrs. before planting. Sow in loose, rich, moist soil after weather warms up. Thin to stand 6" apart. When a year old and in early spring transplant in well enriched beds in permanent position, 24" apart, in rows 20" apart. Set in hole so that crown is 8" below surface, but only cover tips with 3" of soil. As plants grow, fill in until level. Don't cut first year after setting.

MARY WASHINGTON (tr) — Thick, tall green spears with purple tops. Highly rust resistant. Rapid growing. Tender.

BEANS

Green Podded, Dwarf or Bush

BLACK VALENTINE STRINGLESS (tr) — Hardy, early maturing, very productive. Pods, dark green, 6-6 $\frac{1}{2}$ in. long, brittle, smooth, stringless. Seeds black 49 days.

BOUNTIFUL (tr) — An early, heavy-yielding variety. The leading flat podded bean for market and home use. Flat, light-green, stringless, but slightly fibrous pods of finest quality. 47 days.

STRINGLESS GREEN POD (tr) — Large, sturdy plants. Meaty round pods, brittle and strictly stringless. Medium green pods, oval, yellowish-brown seed. 54 days.

GIANT STRINGLESS GREEN POD — 5 $\frac{3}{4}$ " pods almost round. Meaty, stringless and brittle. Medium. Green. 53 days.

PLENTIFUL — Productive, early, Flat. medium green pods, 6 to 7-in. long, strictly stringless. Choicest quality. 51 days.

TENDERGREEN (tr) — Large, erect plants. Abundant, round, dark-green pods, strictly stringless and fleshy. 54 days to maturity.

WADE'S BUSH SNAP BEAN — Resistant to common bean mosaic and powdery mildew. Deep green pod, long, round, slender with reddish brown seed.

TOPCROP — All America Top 12. Does well in the home garden, market garden and is excellent for commercial processing. 5 $\frac{1}{2}$ to 6 inches long. Round, medium light green pods. Packet $\frac{1}{2}$ lb. 45c. 51 days.

Wax Podded, Dwarf or Bush

IMPROVED GOLDEN WAX (tr) — Small, erect plants, moderately productive. Straight, thick, flat pods, creamy yellow and stringless. 51 days.

PENCIL POD BLACK WAX (tr) — Stocky, large, strongly productive plants. Pods, golden yellow, tender, stringless. 55 days to maturity.

SURE CROP STRINGLESS — Handsome, rich yellow pods. Sturdy, brittle. 6-6 $\frac{1}{2}$ in. long. Strictly stringless. 53 days.

Beans, Pole

LONDON HORTICULTURAL OR CRANBERRY — Hardy, good climber. 5" pods flat-oval, dark green when young, splashed with red. Slightly curved, stringless, little fiber and very fleshy. 70 days.

KENTUCKY WONDER WAX (tr) — Vigorous, good climbing plants waxy-yellow pods, flat and nearly stringless. Somewhat fibrous but meaty. 68 days.

KENTUCKY WONDER (tr) — Rust resistant. Strong climber, hardy, long-bearing. Curved, almost round pods. Slightly stringy, but brittle and fibreless. Meaty. 65 days to maturity.

Lima, Dwarf or Bush

BURPEE'S IMPROVED BUSH (tr) — Best of flat seeded bush limas. Pods contain four or five large beans of excellent quality. 75 days.

FORDHOOK BUSH 242 (tr) — All America Top 12. Straight pods with plump, large beans, excellent quality.

HENDERSON'S BUSH (tr) — Known as Baby Lima or Butter Bean. Plants small, early and bushy. 65 days. Very productive.

Lima, Pole

KING OF THE GARDEN (tr) — Flat, smooth pods with four or five white, large, flat beans. 88 days.

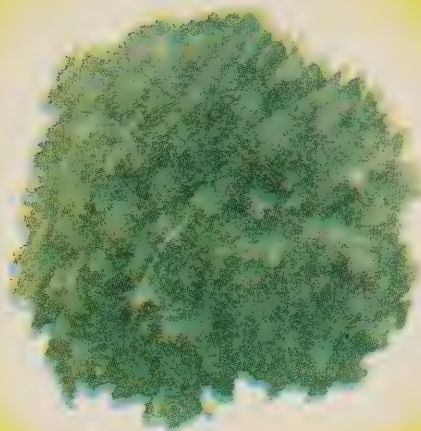
BEANS, SHELL

NAVY — Small seed, almost round and white. Hardy, prolific. Most popular for baking. 95 days.

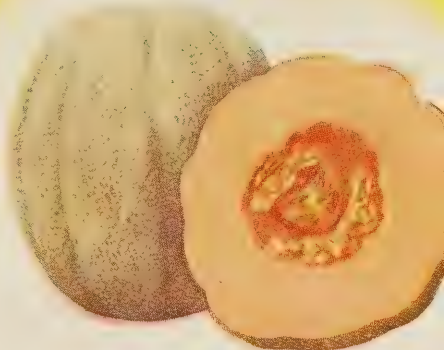
RED KIDNEY — Pods 6-7 in. long. Flat large beans, pinkish red to mahogany in color. Rich flavor. 95 days.

BEETS

Deep, rich sandy loam produces finest beets. As soon as ground can be worked sow in drills 18" apart and press soil firmly over seed. Each "seed" is a fruit with several true seeds. No matter how thinly beets are sown, they will need thinning. Make three sowings, one early, one three weeks later and one 60 days before fall. When tops are 3" to 6" tall pull them and use for cooked greens. Continue this until roots stand 6" apart.



MUSKMELON,
Golden Delight
1952 BRONZE MEDAL



BEETS
Detroit Perfected



CROSBY'S EGYPTIAN (tr) — Widely grown for early beets. Flattened globe shaped roots with small tap root. Excellent quality, tender and sweet. 60 days to maturity.

DETROIT PERFECTED (tr) — All America Top 12. Standard of excellence in table beets. Smooth, globular roots of deep ox-blood red — sweet and tender. 68 days.

EARLY WONDER — Early variety. Semi-globular, tender, blood-red. 58 days.

ALL VEGETABLE SEEDS

15c

Per
Packet

UNLESS OTHERWISE NOTED



GROWING BETTER BEANS

Sow beans in bottom of furrow 3" to 4" deep and from 2½ to 3½ feet between rows, but do not fill in with more than 1½" of soil over seeds. Press soil firmly over seeds, but do not pack hard. Thin to stand 4" to 6" apart in row. Bean seedlings are likely to be slowed up pushing through heavy soil. In such soils, cover seeds with mixture of half sand and half soil, or sand and peat or any other loose, light material that will allow seedlings to break through easily. Thin young plants to about 6" apart. Keep cultivated until plants blossom. DO NOT CULTIVATE when blossoms are at prime or when plants are wet with dew. Keep vines picked to insure a larger bearing period. Don't plant until the weather is warm and settled. Make plantings every two weeks for supplies throughout the season.

—Two scientific facts about beans will help produce better crops. First, being legumes, they should be inoculated with special legume culture, such as NITRAGIN. This enables plants to manufacture their own nitrogen from the air. Second, bud drop of the tiny flowers (even before they can be easily seen) cuts the early set of pods.

BEETS, STOCK (Mangel Wurzel)

Sow seeds in early fall and spring in rows. Plant 2½" to 4" apart. Later thin to 10" apart.

MAMMOTH LONG RED—Very popular, 30 to 50 tons per acre. Roots grow half above the ground. Light red, flesh white with rose tinge, 110 days.

BROCCOLI

Plant and cultivate like cabbage and cauliflower.

ITALIAN GREEN SPROUTING (fr)—Plant bears a succession of sprouting heads about 5-in. long, which, if kept cut, will be replaced by others 8 to 10 weeks, 55 to 65 days.

BRUSSELS SPROUTS

Easy to grow wherever conditions are favorable for late cabbage, and requires same culture. As sprouts begin to form remove lower leaves so that all nourishment sent to lower stem will be forced into the sprouts. Do not use until after heads have matured.

LONG ISLAND IMPROVED—Compact, uniform dwarf size plants. Cabbage-like sprouts 1¼" to 1½" in diameter. One of the most dependable varieties. Edible in 90 days.

SWISS CHARD

Requires about same treatment as beets. Cultivate frequently. Leaves may be gathered during summer and fall. New ones will grow quickly.

LUCULLUS—Most popular Chard. Upright in growth, with yellowish-green curled, crumpled leaves. Thick, broad and light green stems. 50 to 60 days.

RHUBARB CHARD — Heavily crumpled leaves, dark green with a translucent crimson stalk. Easily grown, everywhere. A different, tasty, delicious flavor—cook stalks and leaves together for a new taste thrill. 60 days.

CABBAGE

Yellows Resistant Varieties

YELLOWS RESISTANT MARION MARKET—Large, firm round heads, used for early kraut. A development from Copenhagen Market. 7-in., 4-lb. heads. 75 to 80 days.

YELLOWS RESISTANT WISCONSIN HOLLANDER—Late, excellent for winter storage and kraut. Similar to Hollander and Danish Ball Head. 7 to 8-in., 7 to 9-lb. heads. 100 to 110 days.

Standard Early Varieties

COPENHAGEN MARKET—Excellent, early short season type. Short stems, 6½ in., 3½ to 4-lb. heads. 65 to 70 days.

GOLDEN ACRE—Extra early variety producing uniform well-balanced head. Weighs about 3 lbs. Excellent quality. 65 days.

Late or Winter Varieties

CHIEFTAIN SAVOY—All America Top 12. Flattened globe-shaped. Crumpled leaves. Outstanding quality. 88 days to maturity.

DANISH BALL HEAD OR HOLLANDER—

A widely used late type. Deep, round, hard, compact heads, 7 to 8-in., 6 to 7-lb. Tender, crisp, fine for kraut. 100 to 105 days.

PREMIUM LATE FLAT DUTCH—The best late variety. Large, round, flat solid heads of perfect shape. Less inclined to burst than many varieties. Tender; fine quality.

Red Variety

MAMMOTH RED ROCK—Best of the red cabbages. Hard, round. Purplish-red heads. Good keeper, 6 to 8-in., 7 to 8 lb. heads. 100 days.

CHINESE CABBAGE

Must never be grown as a spring crop since it will only go to seed. Plant after June 15, as days are getting shorter, then it will head. An excellent succession crop to follow early peas.

CHIHILI OR IMPROVED PEKIN—Dependable, early. Solid, tapered heads, 3 to 4-in. thick, 18 to 20-in. long. 75 days.

MICHIHLI—Exceptionally sure heading new variety. Heads firmer and often larger than those of Chihli. Tender, fine flavored. 70 days.

CARROTS

CHANTENAY, RED CORED (fr)—Root has thick shoulder and tapers to slight stump root, 5-in. long. Red cored. 70 days to maturity.

DANVERS HALF LONG—Sweet, tender roots, 6 to 7-in. long tapering to a blunt point. Fine for storing. 75 days.

IMPROVED IMPERATOR (fr)—All America Top 12. Fine-grained, tender. Rich orange, indistinct core. Roots smooth, tapered to semi-blunt. 77 days.

NANTES IMPROVED CORELESS (fr)—Excellent for forcing. Tops small, roots bright orange, blunt ended. Flesh reddish orange and practically coreless. 70 days.

OXHEART OR GUERANDE—Excellent for shallow soil, easy to harvest. Chunky, tender and sweet. Bright orange. Keeps well, 72 to 75 days.

HOW TO GROW CABBAGE



For early cabbage, sow the seed in fine soil in flats in the hot bed 4 to 6 weeks before plants are to be set out. Plant the seed ½ inch deep in drills two to three inches apart. Don't make the soil too rich, since it is likely to make the seedlings grow too fast and become leggy. Water and keep in temperature 50 to 60 degrees.

When seedlings are 3 to 4 inches high, prick out and replant in flats or boxes. This will insure stocky, healthy plants.

Set the seedlings out on a warm cloudy day and put out a sowing of the midseason varieties for kraut at the same time right in the open ground. When raising seedlings of the late, or winter variety, follow the same method, but the flats or boxes are kept outdoors, rather than under glass. Frequent cultivation is needed to keep down weeds and conserve soil moisture. About three weeks after the plants are set out, topdress with nitrate of soda, ¼ lb. per 100 feet. This is necessary only for early season varieties.



CARROTS ARE VERSATILE

The secret of carrot culture is a rich and friable soil. If the soil is not rich, apply a good commercial fertilizer at the rate of 6 pounds per 100 foot row.

Sow the seed thickly as early as the ground can be worked, in drills about 1/2 to 3/4 inches deep in rows 1 to 2 feet apart. And use those carrot thinnings for delicious eating!

Heavy clay soil, because of its density, resists the downward growth of long, slender rooted vegetables. Sand added to heavy soil will assist in relieving the density, but it must be accompanied by peat moss, Vermiculite or the new chemical soil conditioners.

Carrots are one of the most versatile of the garden vegetables. Crisp and crunchy in salads or served as a relish chilled, and cut into lengthwise strips or dainty curls, and they can't be beat cooked either alone, or in stews, soups, chowders, with roasts or another vegetable, in congealed salads . . . and for a taste thrill, try vitamin-packed chilled carrot juice as an appetizer.



CAULIFLOWER

PACKET, 25c

Needs rich soil and abundant watering. Cultivate same as cabbage but protect heads from sunlight to insure the prized white curd. This is done by gathering leaves together loosely as soon as heads begin forming, and tying them well at the top.

EARLY SNOWBALL (fr)—Best and most widely used early variety. Medium, firm compact heads of fine flavor. 6-7 inches in diameter, 55 days.

CELERIAC

LARGE SMOOTH PRAGUE—(Turnip rooted celery). Smooth spherical roots. 2 to 3-in. thick, 120 days.

CELERY

Start in shaded hotbed 60 days before needed. Cover seeds 1/4". Transplant when 6" high. In setting outdoors, don't get soil in or over crown. Set 7" to 12" apart. Soil must be rich, moist and loose. As soon as plants have grown to 14" to 15" tall, set 12" boards on both sides of row and hold in place with earth. Or 4" drain tile can be used to blanch individual stalks. Celery must have warm, settled weather. If chilled, plants are likely to go to seed. Keep soil well fertilized and moist. Crop matures in cool weather of autumn.

GIANT PASCAL—Late variety for winter use. Large plant, dark green leaves. Big solid stalks that blanch to yellow white. 135 days.

GOLDEN SELF BLANCHING, DWARF—Compact plants, yellowish green foliage. Broad solid stalks, nutty flavor. Blanching readily. 120 days.

WONDERFUL OR GOLDEN PLUME—Early, medium plant with compact, full heart. Blanching easily to golden yellow. 112 to 115 days.

COLLARDS

Sow seed heavily and transplant when 4" high, or sow in rows in permanent beds and thin to 16" to 18" apart when plants are well started.

SOUTHERN OR GEORGIA—An excellent cooked green. Long stemmed plant, with clustered leaves. Withstands heat and bad soil. 24 to 36 days.

SWEET CORN

Hybrids

We offer Hybrid Sweet Corn varieties known as the best for your garden—the finest that can be produced anywhere. We list here only a few of these choice kinds. Whatever your needs or your preference, be sure we can supply you with the kind of corn you want. Talk it over with us.

IOCHIEF—All-America Top 12. A yellow hybrid sweet corn with sensational qualities. Sugar sweet and tender—stays prime longer—rich color.

GOLDEN CROSS BANTAM (fr)—Extremely uniform. Ears 10 to 14 rows, slightly lighter yellow than Golden Bantam. Highly resistant to Stewart's disease. 85 days.

IOANA (fr)—Ears 7 1/2 to 8-in., well-filled with 12 or 14 rows of deep, medium narrow, light yellow kernels. Highly resistant to drought and bacteria wilt. 87 days.

MARCROSS (fr)—An early wilt-resistant hybrid, producing deep golden yellow kernels 7 days earlier than Golden Bantam. Ears 6 to 7-in. long, with 12-14 rows of large sweet kernels. 73 days to maturity.

STOWELL'S HYBRID EVERGREEN—White. Large ears about 8-in. long; big kernels, very sweet. One of the best late varieties. 95 days.

Open-Pollinated

BANTAM EVERGREEN—A cross of Golden Bantam on Stowell's Evergreen. 14 to 18 rows. Deep, rich golden kernels, tender, sweet. 90 days.

BLACK MEXICAN—Pure white corn with purplish-black seed. Ears are 7 to 8-in. long, 8 straight rows. 88 days.

COUNTRY GENTLEMAN OR SHOE PEG (fr)—Prolific late variety. Favored by canners. Irregular kernels, very deep, sweet. 93 days.

GOLDEN BANTAM (fr)—The best and most favorably known of all the yellow varieties. Stalks often have 2 ears. Ears 8 rowed, kernels broad, with tender hull.

STOWELL'S EVERGREEN—White. Large ears about 8" long. Big kernels. Very sweet. Good late variety. 93 days.

POP CORN

SOUTH AMERICAN OR YELLOW DYNAMITE—Rich, creamy, yellow, smooth and round kernels, which pop double size of others. Ears 8 to 9-in. long. Vigorous grower. 115 days.

Hybrid Pop Corn

You will be delighted with hybrid pop corn. Yields are terrific; every plant produces corn with satisfying, big ears, with uniform popping ability. ASK US ABOUT THESE HYBRIDS!

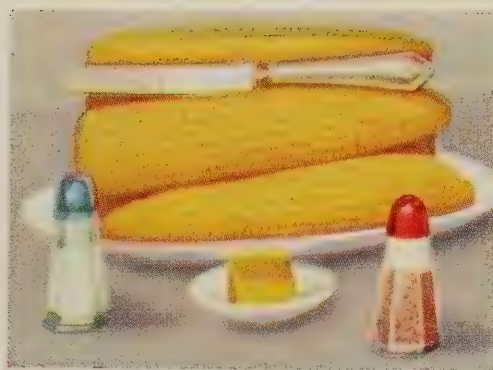
TIPS ON SWEET CORN

To get sweet corn that is really sweet, it must be homegrown and picked shortly before serving as 50 per cent of the sugar is converted to starch 12 hours after picking.

Removing suckers has been standard practice with practically all growers. Now, experiments prove that removing suckers merely takes away extra food-producing leaves and so hurts rather than helps growth. Also, suckering often disturbs roots enough to injure the plant. Always plant corn in several short rows side by side rather than one long row. Corn is pollinated by wind and rows side by side mean that all the stalks can be reached by the pollen. Many home gardeners, on reading newspaper accounts of corn detasseling, assume that this is necessary to set ears. On the contrary, removing tassels may cut the crop seriously. Detasseling is only done where hybrid corn is raised for seed purposes. The more pollen that flies, the better the set of kernels. So don't detassel sweet corn in the home garden. If weeds are under control, stop cultivating. If weeds are bad late in the season, work the soil as shallow as possible to avoid injuring surface feeder roots.



EGGPLANT,
Black Beauty



SWEET CORN, Ioana



BEANS, Fordhook Bush Lima
ENDIVE

NATIONAL PICKLING—Rich dark green. Straight and rather blunt at ends but not chunky. Best all-around pickler. Edible in 55 days.

STRAIGHT EIGHT—Unsurpassed as slicing cucumber. 2½-lb. fruits, rounded at ends, medium green. 68 days.

EGGPLANT

Requires continuous warm weather for best results. Seed should be started in a hotbed, as it is slow to germinate. Set plants in open ground when 2" tall and protect from hot sun when young. Be sure to keep young plants developing rapidly. Cultivate freely. To produce large fruits, remove lateral branches so as to reduce number of fruits per plant. Spray to protect from potato bugs.

BLACK BEAUTY (fr)—Large, egg-shaped, smooth, very dark purple fruits. Plant bears 4 to 5 fruits. Early.

NEW HAMPSHIRE HYBRID—Developed for short season areas. Round to olive shape fruits, growing low on the bush.

Strictly a cool-weather crop: gets bitter at temperatures much above 80 degrees. Even moderately warm weather causes the plants to produce seed stalks. Plant very early. For late fall, sow early in middle autumn. Use last planting as late fall salad crop, and store surplus in cold frame or cellar by digging each plant with ball of soil. Plant in shallow drills with rows spaced 18" apart. When 4 inches tall, thin out to stand 6 inches to a foot apart. To blanch gather the outer leaves together and tie with soft twine or raffia. Do this when plant is nearly grown. Strings should be untied after a rain to permit leaves to dry and avoid rotting.

FULL HEART OR ESCAROLE—A strongly bunched mass of thick, slightly crumpled leaves, well blanched heart. Upright growing plant about 12 inches in diameter. 71 days.

GREEN CURLED RUFFEC—Plants 16 to 18-in. in diameter. Fine fall variety. White, tender, fleshy. 95 days.



RADISH,
Early Scarlet Globe

CUCUMBER

Select soil fully exposed to sun and enrich thoroughly with fertilizer. Sandy soils with plenty of compost are best. Roots have difficulty on heavy soils. Plant 8 to 10 seeds in a "hill." Plant each hill about 36" apart. Cucumber vines like to stretch out, so plant rows about 4 feet apart. The old tale that melons or squash will cross pollinize with cucumbers and affect their taste if planted nearby is untrue. When vine is 6" long, thin to three strongest plants. Keep fruits picked to promote continuous fruiting. Use plenty of moisture; cucumbers are 90 per cent water.

A AND C—A long dark green cucumber which merits a trial. Uniform, nearly cylindrical, rounded at ends.

CUBIT—Dark green, white spine cylindrical with blunt ends. Firm flesh and uniform coloring. New and worth while.

DAVIS PERFECT—Midseason. 9 to 10-in. long, tapered, good color. 68 days.

EARLY FORTUNE—Rich, dark green fruits with firm, crisp, pure white flesh. Grows to 9 by 2½-in. Ships well and is highly resistant to disease. Edible in 66 days.

EARLY SURECROP HYBRID—All America Top 12, 1953. Fruits slender, blunt ends, 8 to 9 inches long, 2½ in. in diameter, holds its dark green color well after picking. Flesh is crisp, white and unusually delicious. Small seed cavity. Resistant to mosaic and downy mildew.

LONG GREEN IMPROVED—Black spined, good pickling. Grows 10 to 15 in. long. Matures in 70 days.

MARKETER—Fine new variety, very prolific. Attractive rich, dark green color, carried right down to blossom end. Crisp, icy-white flesh. 7¾-in. long 2¾-in. diameter.

A GARDEN OF HERBS

This year, why not plant an old fashioned herb garden?

The yellow design in the background is the pattern of a

typical old-fashioned garden of culinary herbs. This gar-

den carries out the English "Knot" design, and includes

Anise, Basil, Borage, Chives, Sage and Thyme. Many

variations can be made in the geometric design, but take

care to plant the taller herbs, such as Dill, Rosemary and

Fennel, in the center and use the lower growing herbs for

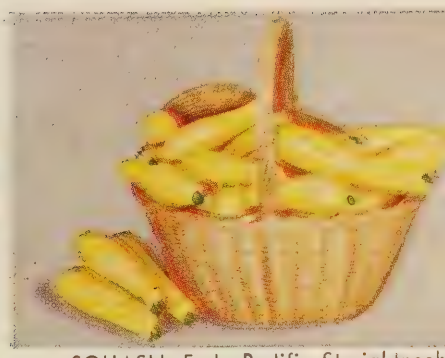
outlining the borders.



TURNIP, Purple Top White Globe



SQUASH,
Zucchini



SQUASH, Early Prolific Straightneck

HERBS

(AROMATIC, MEDICINAL AND KITCHEN)

ANISE—An annual—used for garnishing, seasoning and for cordials. Seeds have an aromatic flavor. Plants 14". 75 days.

BASIL—SWEET—Annual; Ht. 12" to 18". Leaves, green or dried, are chiefly used as a seasoning for soups, stews, etc. 85 days.

BORAGE—Annual; Ht. 12-18". Young tender leaves are used as salad and also used to flavor lemonade and other cooling drinks. 80 days.

CARAWAY — Biennial; Ht. 18-24". Seeds used for flavoring. Young leaves and shoots used for flavoring salads. 70 days.

CORIANDER — Annual; Ht. 24-30". Seeds used for flavoring and in candy and to mask taste of medicine. 75 days.

CHIVES—Perennial; Ht. 6". Tops, finely chopped for adding mild onion flavor to soups, stews, salads, etc. 80 days.

DILL—Annual; 2' to 3'. Seeds and leaves used for flavoring—especially for dill pickles. 70 days.

FENNEL, SWEET — Biennial; Ht. 2' to 4'. Leaves are used for garnishing, fresh stems tender, eaten raw like celery or in salads. Seeds used for flavoring. 60 days to mature.

MARGORAM, SWEET—Annual; Ht. 1' to 2'. Used for seasoning either fresh or dried. 70 days.

ROSEMARY—Perennial used as annual; 2' to 4'. Fragrant odor and warm, pungent taste, acceptable seasoning.

SAGE—Perennial; Ht. 14" to 16". Used for seasoning either fresh or dried.

THYME—Perennial; Ht. 8" to 12". Aromatic foliage used as seasoning. 85 days.

KALE OR BORECOLE

Early fall or spring sowing. Either in rows or broadcast. To produce large plants have rows 2' apart and thin to 2' in rows. Leaves are best after coming of cool weather in fall.

DWARF BLUE CURLED SCOTCH — Wide spreading, fine curled blue-green plant plume-like leaves. Used as a vegetable and for ornament. Exceptionally uniform. 55 days.

**ALL PRICES
IN THIS CATALOG
ARE SUBJECT TO CHANGE
WITHOUT NOTICE**



WATERMELON
Dixie Queen

KOHLRABI

Sow seed in early spring or fall and when well established thin to 6" apart in the row. Even better to start it in beds and transplant same as cabbage. Planting at intervals of 10 days gives tender bulbs until hot weather. Must be used when young. Woody when old.

WHITE VIENNA EARLY (tr)—8 to 10-in. leaves on slender stems. Bulbs 2 to 3-in., globular light green. Crisp, tender, clear white flesh. 55 to 60 days.

LEEK

LARGE AMERICAN FLAG—An early, popular variety, with thick, long white stems, leaves large and drooping, medium green. 130 days.

LETTUCE

Keep lettuce growing rapidly for best results. A light, rich soil needed for this. Earliest varieties must be started from seed in cold-frame. As soon as open ground can be worked, transplant. For later use, sow seed in open ground as soon as weather is favorable. Thin plants in rows 4" to 8" depending on variety.

Remember that lettuce is a fast-growing, rich feeding crop. Give it plenty of water. And use your compost or well-rooted manure liberally on the lettuce row. A light sprinkling of nitrate of soda will pay, too, because lettuce thrives on lots of nitrogen.

Heading or Cabbage

BIBB—Early, small headed lettuce of excellent quality and flavor. Perfect for home gardens. Very smooth, dark green leaves, bleaching to yellow.

BIG BOSTON OR MAMMOTH BOSTON — Popular for cold frame forcing and outside culture. Medium, compact, heads with creamy yellow heart. Smooth, glossy leaves, edges wavy, and slightly tinged with reddish brown. 75 days.

GREAT LAKES—All America Top 12. An outstanding new Iceberg or Crisp-head type. A summer lettuce that stands heat well and is very resistant to tip burn. Heads medium, solid.

(Continued on page 26)

HEAD LETTUCE IS EASY

The old bug-a-bear about home gardeners being unable to grow head lettuce is true no longer.

It's all in the "know-how" of the needs and peculiarities of lettuce. All types have certain individual characteristics. The best way to get a start with head lettuce is in a hot bed or in the house. Do this early enough so that the plants will be large enough to set out in the very early spring.

It is very important to thin head lettuce so that the plants may become stocky and vigorous. Transplant the lettuce, started indoors, when the plants have made 2 or 3 true leaves. Set the plants at least 8 inches apart in the row in light, warm soil. Liberal applications of well rotted manure, thoroughly mixed with the soil before the plants are set out will supply humus and needed fertility.

Cool, moist weather is best for growing head lettuce, and unless there is an unusual amount of rainfall, watering is needed. Let the water trickle from a hose along the roots of the plant for several hours so that the soil will be thoroughly soaked.

LETTUCE VARIETIES

For the home gardener lettuce may be divided into three classes:

HEAD LETTUCE—tight, crisp, nearly white lettuce with a cabbage-like head.

LEAF LETTUCE—loose, and has many more outer green leaves, and head is not so compact, and is white only towards the center.

COS LETTUCE—With loose, oblong, head-like clusters of spoon shaped leaves. Cos, or Romaine lettuce is little grown, but is useful for a summer supply or in regions too hot to grow the first two types.

Suggestions on Growing

CUCUMBERS, MELONS, SQUASH AND PUMPKINS

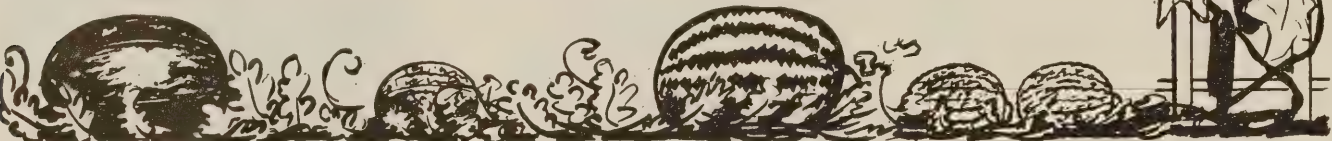
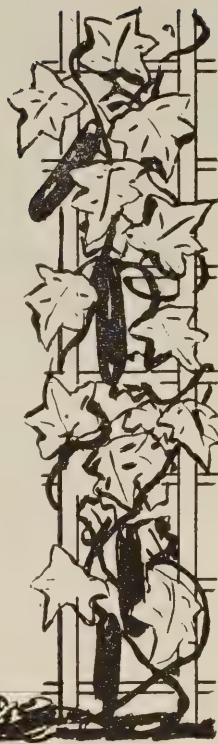
Probably the best way to grow these in the home garden is to plant them in water holes.

Space the water holes about 9 feet apart in the row, using large cans (they don't have to be new). Punch a half a dozen or so small holes in the sides and sink the can in the ground to the rim. Work the soil deeply and if possible, loosen it with old manure, peatmoss, compost or rotted grass clippings. Then, when time comes to plant the seed (they should not be planted until the weather is warm and the danger of a late frost is over) space 5 or 6 seeds around each can about 3 inches out and cover with soil about 1 inch deep.

Keep the can filled with water and about every 3 weeks add 1 teaspoon of a balanced plant food to the water.

The most important thing to remember about cucumbers, melons and squash, is insect control . . . As soon as the seedlings produce leaves, spray with a 3 per cent nicotine dust to destroy aphids. Use this dust once a week for ten weeks. After the third week, add 2 parts of arsenate of lead to the dust to destroy beetles, or use one of the all purpose dusts now on the market.

All cucumbers will climb if they are permitted to do so. When garden space is limited home gardeners have found that cucumbers will be happy climbing a fence, whether it is called a climber or not. Even those with the largest fruits so heavy that you might think that they would need support, seldom do.



LETTUCE, Continued

ICEBERG—Late, large variety. Compact heads, crumpled, crisp and sweet. Leaves light green, slightly brown on edges, 85 days.

IMPERIAL NO. 847 (FLORIDA ICEBERG)—Heads are of good size and solid. Does well in hot weather, and resistant to tip burn. Hardy. 83 days.

NEW YORK NO. 12—The standard crisp-head lettuce. Large globular shaped head, dark green with blanching, silvery white heart. Successfully grown outdoors spring, summer and fall. Edible in 85 days.

WHITE PARIS COS OR TRIANON—Medium large self-folding dark green leaf shaped heads. Greenish-white, well blanched interior. 66 days.

Loose Leaf Varieties

BLACK SEEDED SIMPSON — Light green, frilled and crumpled. 45 days.

GRAND RAPIDS—Erect, compact plants. Light green, broad heavily fringed. For forcing or early planting. 43 days.

OAK LEAF—The most popular leaf lettuce for home gardens. Rich, dark green leaves, tender and delicious. Fine resistance to hot weather.

PRIZEHEAD—Early non-heading sort. Medium sized plants, crisp and tender. Color light brown on a medium green base. Leaves frilled at edges, and crumpled. 47 days.

SALAD BOWL — All America Gold Medal Award for 1952. Delicious bowl-full of rich green and decorative leaf lettuce.

MANGEL WURZEL

(SEE BEETS, STOCK)

MELONS

MUSKMELON AND CANTALOUPE
Easily injured by cool weather. Before planting, spade liberal forkful of well rotted manure into each hill. Plant 8 to 10 seeds to a hill. Thin plants to four per hill after third leaf develops, and train vines in different directions. On moist ground, use shingles to hold melons off ground to prevent rotting. If grown in cool weather or where nights are cold, will not bear well and melons will have poor flavor.

BENDER'S SURPRISE—Similar to Tip Top. Coarse netted 7-lb., oblong fruit, distinctly ribbed hard greenish-yellow skin. Flesh bright salmon, 95 days to maturity.

HALE'S BEST—Flesh thick, deep salmon-pink, sweet and tasty. Heavily netted rind, with faint stripe. Small seed cavity. Outstanding variety, resistant to powdery mildew. 4 lbs. 86 days.

HEARTS OF GOLD OR IMPROVED HOODOO—Nearly round 2-lb. fruit, distinctly ribbed, deep green with fine grey netting. Thick, deep salmon flesh, tender sweet. 94 days.

HONEY ROCK OR SUGAR ROCK—Round, 4-lb. fruit. Gray-green skin, coarse, sparse netting. Orange-salmon, thick flesh, fine flavor. 85 days.

PRIDE OF WISCONSIN—Small seed cavity and thick, orange flesh, excellent flavor. Matures early. Large size. A new melon which is deservedly becoming a leader. 92 days.

ROCKY FORD — Fruits small with rather large red cavities. Nearly round, 2½ lbs. No ribs. Flesh thick and green with golden tinge at center. Very juicy and spicy. Excellent quality. 92 days to maturity.

GOLDEN DELIGHT—Winner of the 1952 All America Bronze Medal. Delicious orange or salmon flesh. Fruits elongated and firmer than most of its class.

WATERMELON

Requires about same culture as muskmelon, except the vines need more room. fertilize each hill liberally and cultivate thoroughly.

COLE'S EARLY—An early variety for the North. Medium size fruit, short oval with alternate dark and light green stripes. Pink-red flesh, black seeds and tender rind. 75 days.

DIXIE QUEEN—Very prolific. Bright-red, crisp, splendid quality fibreglass flesh. Few small, white seeds, 85 days.

KLECKLEY'S SWEET OR WONDERMELON—Large, cylindrical, dark bluish-green, with thin, tender rind. Bright red, juicy, sweet flesh, creamy-white seeds with traces of brown, 85 days.

NEW HAMPSHIRE MIDGET—Icebox size, very good flavored strawberry red flesh. The best midget so far produced and recommended where standard or large sized watermelons do not mature satisfactorily. 78 days.

STONE MOUNTAIN—Also called Dixie Belle. High quality shipping variety. Fruits very large, oval-round, blunt ends. Dark green, tough rind. Flesh rich, scarlet, fine grained, sweet. Seed white with black tips, 90 days.

TOM WATSON—Red heart strain. Large fruit, uniform cylindrical, with tough elastic rind, faintly veined. 90 days.

HAWKESBURY—Large 25-40 lbs. Oblong. Flesh dark red, sweet and of good quality.

MUSTARD

Sow as early as possible in the spring. Keep rows 6" to 12" apart and cover with soil ½" deep. You may also sow seed in autumn to raise greens, and for salads.

FORDHOOK FANCY—Upright growing, mild variety. Bright green leaves, plume-like and deeply fringed on the edges. 50 days.

SOUTHERN GIANT CURLED—Large, frilled and crumpled. Light green leaves, 35 days to maturity.

OKRA OR GUMBO

Sow in rows about 3" apart. Cover seeds with about 1" of fine soil firmly pressed down. Thin plants 18" to 24" apart when they reach 3" growth. Do not plant until ground is warm, as this is a tender, hot weather plant. Pick before woody fibres develop.

DWARF GREEN — Early, prolific dwarf growing sort. Dark green fluted, 5 to 7-in. pointed pods. Most desirable, compact growing okra. 50 days.

PERKIN'S MAMMOTH LONG POD—Early and prolific. Very tender, long pods, Deep green and slightly corrugated, 68 days.

ONIONS

Plant as soon as soil can be prepared. For best yield, plant on very fertile land—fall plowed, and thoroughly fertilized. When plants are a few inches tall, thin to prevent crowding—using the plants removed as green onions. Leave 4" apart for globe-types and 6" for the big Spanish types to mature for dry onions. Latter can also be started indoors for largest bulbs and can be set out 6" apart after frost danger has passed. All onions need liberal feeding and watering. Those left to become fully ripe can be stored for winter. Cultivate and hand weed every two weeks in summer.

Yellow Varieties

YELLOW SWEET SPANISH—Large, globe-shaped, exceptionally mild and sweet—excellent for eating raw or boiled. Light yellow skin and pure white, firm, crisp, and tasty flesh, 112 days.

YELLOW GLOBE DANVERS—An oval shaped straw-colored onion. White flesh, crisp and mild. Splendid keeper, Matures in 110 days.

White Varieties

SOUTHPORT WHITE GLOBE—Best of the whites, Medium-sized, round, solid white bulbs, fine thin skin. Waxy white flesh, mild and fine grained. Keeps well in fall, 110 to 112 days.

WHITE BUNCHING—A good Spring appetizer. Crisp and mild. Fine for cooking when grown larger. 60 days.

WHITE PORTUGAL or SILVERSKIN—Excellent flat variety. Dependable cropper, excellent for sets, for green bunching, or as a pickler. 100 to 102 days.

Red Varieties

SOUTHPORT RED GLOBE—Finest of all red onions. Perfectly round, good sized bulbs with thick, small necks. Skin is deep purplish-red. Strong flavored flesh, white tinged with pink. Good keeper, productive. 112-114 days to maturity.

ONION PLANTS

Sturdy, hardy plants that come to you all ready to set out. Ask for prices.

ONION SETS

Onion sets used instead of seeds will produce earlier crops of green onions or large bulbs. Plant seeds right side up and cover with garden rake; then firm the soil well over the sets.

RED, WHITE, YELLOW

PARSLEY

Does best in rich, mellow loam. Seed is slow to germinate, and is helped by soaking in warm water overnight before planting. Sow early and not too deeply. Space plants 6" apart. When curled varieties are about 3" tall, cut off leaves. The new growth will be brighter and curlier.

MOSS CURLED or TRIPLE CURLED—Compact, dark green leaves, curled and fine-cut, 70 days.

PARSNIP

Needs rich, mellow soil for best growth. Must be planted as early as ground can be worked. Soil must be loose to a depth of 12" and cannot be heavy. Rows should be 15" to 18" apart. Cover seed 1/2" and press down soil. Thin out to 4" when plants have made a good start. Cold weather turns starches into sugar and improves flavor. Roots are hardy: leave in ground over winter if desired.

HOLLOW CROWN (fr)—The most generally grown kind. Roots 2 1/2 to 3-in. thick at shoulder. 12 to 14-in. long, uniformly tapered, hollow crowned. Edible in 95 days.

PEAS

Early peas need a light, warm soil; but general crop thrives best in moderately heavy soil. (Avoid fresh manure and very rich or wet, mucky soil as this produces large growth of vine at the cost of quality of the peas.) Plant seed in rows at 2" depth. Keep rows 21" to 28" apart for dwarf varieties and 28" to 42" for the taller types. Gather crop as fast as it is fit to use or new pods will cease to form and those partly advanced will cease growth.

Plant variety Alaska as soon as ground can be dug. Plant wrinkled varieties (which have better flavor) when narcissus buds show color or when crocuses are in bloom. Peas are not satisfactory when weather turns hot. Tall varieties must be staked. Most home gardeners prefer dwarf varieties like Little Marvel. Peas want well-limed soil. Don't forget, inoculation improves production.

Early and Second Variety

ALASKA—Wilt resistant. Used for canning and early home garden. Blunt, straight light-green. 3-in. pods. Plants 32-in. 69 days

FREEZONIA (fr)—Luscious, melting peas that retain their garden fresh sweet flavor after freezing. 3 1/2 inch pods packed with 8 or 9 medium sized peas. 63 days.

LAXTON'S PROGRESS (fr)—Medium dark green vine, 16 to 18-in. Single pods almost an inch wide and 4 1/2 to 5-in. long, with 7 to 9 large peas. 62 days.

LITTLE MARVEL (fr)—Outstanding, dwarf. Fine quality, large yield. Single and double, dark green, 3-in. pods—blunt, plump, well filled with 7 to 8 medium sized, light green tender peas. Edible in 62 days.

THOMAS LAXTON (fr) — Medium height. Strong vine bears numerous dark green, blunt ended pods, 4 to 4 1/2-in. Retains flavor and sweetness. One of earliest. 57 days.

Later Varieties

ALDERMAN OR DARK-PODDED TELEPHONE (fr)—Large podded variety of the Telephone family. Excellent for home gardens, truckers, shipping to distant markets and for freezing; resistant to Fusarium wilt. Vine dark green, coarse. Pods single, very broad, plump, straight, dark green, pointed; contains 8 to 10 peas of highest quality. Seed large, wrinkled, light green. 74 days.

HUNDREDFOLD OR LAXTONIAN—Exceptionally choice and prolific. Dark green. Rather coarse vines. Straight pointed, well-filled 2 1/2" pods. 62 days.

Edible Podded or Sugar

MAMMOTH MELTING SUGAR—Wilt resistant. Coarse light-green vine, 54-in. Single 4 1/2-in. pods, broad, indented light, blunt, stringless, without fiber, fleshy. Contains 7 peas. Seed large, round, creamy-white. 74 days.

PEPPERS

Need long growing season; start indoors 8 weeks before plants are wanted. Set plants 15" x 24" and feed liberally for bigger fruits.

Warm, mellow soil in sheltered location is best. Cultivate regularly, drawing soil up around stems. When plants are 7" to 8" tall, hoe in light dressing of commercial fertilizer. Do not plant hot peppers near sweet; they are apt to cross.

Sweet

CALIFORNIA WONDER IMPROVED—Number one quality peppers, about 4-in. long and 3 1/2-in. diameter, very smooth, 3 and 4 lobed, glossy green, turning bright crimson when ripe. Remarkable thick walls, tender, sweet. 75 days to maturity.

PIMENTO OR PERFECTION—Best of the medium sized sweet peppers. Excellent for stuffing. Smooth, heart-shaped, about 3-in. long. 125 days.

RUBY KING—Bred for size and uniformity. Dark green turning to bright deep red fruit. Thick flesh sweet and mild. 60 days.

WORLD BEATER—One of the best large peppers. Glossy-green, changes to bright red. Mild, very sweet, thick flesh. 75 days.

Hot

HUNGARIAN WAX—Slender, waxy yellow fruit about 6-in. long turns red when ripe. Very hot. 65 days.

LONG RED CAYENNE—The hot favorite. For canning, pickling, drying. Pungent flavored fruit, tapering and twisted. Matures in 70 days.

The DO'S & DON'TS of Tomatoes

The best time to set tomatoes out is a week or so after the average date of the last killing frost. However, if Hotkaps or similar protection is provided for the tender plants they may be set out a little earlier. Do not set plants during cold, wet weather because the growth may be checked. Do set plants deeply in the ground.

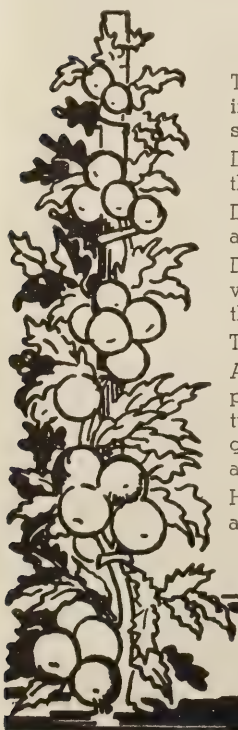
Don't plant too close together. A half dozen good plants properly spaced will produce as much as twenty that are too close together. Put one plant to every square yard for proper spacing.

Do use proper fertilizer to produce maximum yields of tomatoes. Those high in phosphorous and potash are best. Use only moderate amounts of nitrogen, it causes excessive growth of vines and few fruits.

Don't plant tomatoes on poorly drained soil. They need a moderate amount of moisture, but too much develops growth at the expense of the fruit. When the soil is very wet, the fruits lose their flavor because they absorb a great deal of the moisture.

Tomatoes unstaked produce more fruit, but require more space as the plants are weak and sprawling. Allow 4 feet apart each way unstaked. When tomatoes are allowed to run on the ground, mulching is a good practice. A 2 or 3 inch layer of hay, straw, old leaves, lawn rakings, or anything of the sort retains the moisture in the soil, smother weeds and keeps the fruit clean. One method used to keep the tomatoes off the ground is a low wood trellis shown below. Another is use of a barrel hoop, supported about 18 inches above the ground by stakes (3 to each hoop).

However, staked tomato plants are probably best for the home gardeners as space is saved. Tie each plant to a 6 foot stake and pinch off superfluous leaves. Set plants 2 1/2 feet apart each way.



SQUASH, Uconn

BEANS, Topcrop



TOMATOES, Rutgers

CABBAGE,
Copenhagen Market



PUMPKIN

Plant in middle of spring among corn; or in hills 8' apart each way. Drop 4 seeds to a hill. If planted in hills, cultivate the same as melons and cucumbers. For winter use gather before frost (leave stem 3" to 4" long) and store in warm, dry place.

CONNECTICUT FIELD—Large fruit with flat ends, 15 to 25-lbs. and up to 15-in. Surface, slightly ribbed, deep orange. Thick flesh, orange-yellow, sweet and coarse. 118 days.

KING OF THE MAMMOTH—Largest of all pumpkins. Valuable for stock feeding and exhibition. Globular, slightly ribbed, flattened, weigh 60 to 90-lb. Flesh solid, yellow-orange, coarse, but good quality. 120 days.

SMALL SUGAR OR NEW ENGLAND PIE—Desirable for pie or general use. Round, flat end fruit, deep orange. Thick, yellow-orange flesh. 118 days.

RADISH

Soil should be light, quick and rich to insure rapid growth. Slow growth makes the flavor too strong. Sow as early as ground can be worked, as radishes are very hardy. Make successive sowings up to hot weather. When in the third leaf, thin to give roots plenty of room. Pull promptly when mature. The secret of crisp, delicious radishes is quick growth, prompt picking.

CHERRY BELLE—All America Top 12. A popular short-topped type for both forcing and outdoor garden use. Round, smooth and red, with crisp firm white flesh. Extra early. 22 days.

CRIMSON GIANT—Large round, 1 to 1½-in. Deep crimson roots. Very crisp and tender for its size. 28 days.

EARLY SCARLET GLOBE—Globular, slightly elongated, bright scarlet. 24 days.

EARLY SCARLET TURNIP, WHITE TIPPED—Carmine red with white tip. Flesh white, crisp and mild. 26 days.

FRENCH BREAKFAST—Roots thicker toward bottom. 1½-in. long by ½ to ¾-in. Dull scarlet, white tipped. 25 days to maturity.

WHITE ICICLE—Tapering roots 5 to 5½-in., White, mild flesh. 27 days.

Fall and Winter Varieties

CELESTIAL OR CHINESE WHITE WINTER—White flesh, rather mild in flavor. Roots large, 8" long and 2½ to 3 inches in diameter, cylindrical with heavy shoulder. 60 days.

LONG BLACK SPANISH—Good keeping winter variety. White, crisp and pungent. 8 to 9-in. long, slightly tapered. Edible in 58 days.

ROUND BLACK SPANISH—Top-shaped. 3" to 4". Flesh white, crisp and of strong flavor. 56 days.

RUTABAGA (SEE TURNIP)

SALSIFY

Light, rich soil best and it must be stirred to a considerable depth. Sow in rows 18" apart. Cover seeds firmly with ½" of fine soil and thin plants later to 2" to 3" apart in the row. Cultivate the same as carrots.

MAMMOTH SANDWICH ISLAND—A palatable and nutritious vegetable when cooked. Flavor is remarkably similar to oysters. 120 days.

SPINACH

Plant seed in very rich soil in rows spaced 14" to 18" apart. Keep plants thinned out from 3" to 6" apart in the row. (Seed may also be sown broadcast) Sown in fall for winter use and spring for early use.

AMERICA—All America Top 12. The best long-standing, heat-resisting, heavy-yielding, savoy-leaved spinach. 6 to 8 inches high and spreads 10 to 12 inches. 62 days.

BLOOMSDALE SAVOY, LONG STANDING (fr)—A few days later than regular Bloomsdale Savoy. Holds from 12 to 14 days longer. 42 days.

GIANT NOBEL OR GIANT THICK LEAF—Large, vigorous, spreading plant, slow to form seed stalks. Heavy yielder. Large, thick smooth, deep green leaves. 45 days.

NEW ZEALAND—Thrives in dry hot weather. Can be picked repeatedly all season. Not a true spinach, but similar when cooked. 70 days.

SQUASH

Follow same planting and culture as for melons and cucumbers. Plant summer varieties 6 or 8 seeds in hill 3' to 4' apart each way and winter squash 8' apart. Plants bear longer if squash is picked off as soon as it is ready for use.

Summer Varieties

EARLY PROLIFIC STRAIGHTNECK (fr)—All America Top 12. Earlier, smaller, and more productive than Giant Summer Straightneck, and more uniform. Brilliant yellow. Fine for home or market. 50 days.

GIANT SUMMER CROOKNECK—Prolific bush type plant, curved neck fruits around 4 to 5-lb., 20 to 24-in. long. 4 to 5-in. diameter. 56 days.

MAMMOTH WHITE BUSH SCALLOP—3½" long, 9" in diameter. Retain their white color at later stages. 56 days to maturity.

ZUCCHINI—Straight, cylindrical fruits, 3 to 4-lb., 3 to 5-in. through 10 to 14-in. long. Mottled and striped green-creamy-gray. Delicate flavored flesh. 60 days.

Fall and Winter Varieties

BUTTERNUT—Dry sweet yellow flesh of superb texture and excellent flavor. Has only a small seed cavity. Is tasty baked or boiled. Easily grown and a good keeper.

GOLDEN HUBBARD—An early, small variety. Fruits pointed at each end moderately warted. Dry, deep orange flesh.

IMPROVED GREEN HUBBARD (fr)—Most widely grown of any winter squash. Round, warted, dark green with thick yellow flesh. Weight 12 to 14 lbs. 100 days.

ALL VEGETABLE SEEDS

15c

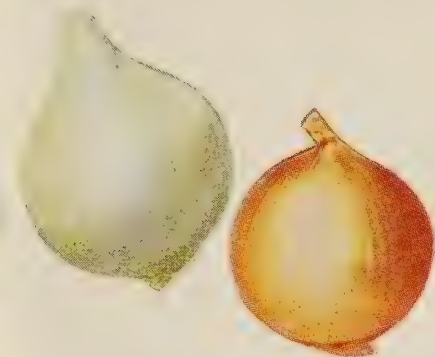
Per
Packet

UNLESS OTHERWISE NOTED

TABLE QUEEN OR DES MOINES OR ACORN (fr)—Acorn-shaped, green, deeply furrowed flesh, rich yellow, dry, mealy, delicious. Convenient size for baking and serving in halves, 100 days.

UCONN—A highly productive squash of the "Table Queen" or "Des Moines" type. Bushy plants that do not have the rambling characteristics of most squashes. An excellent keeper. Dark green shell with golden flesh. About 5 in. in diameter.

SWISS CHARD (SEE BEETS, LEAF)



ONIONS, Sweet Spanish
Yellow Globe Danvers

TOMATOES

BEEFSTEAK—Rich scarlet-red, extra large fruits, more or less ribbed. Juicy, solid, with rich sub-acid flavor. One of the best for home use, 90 days to maturity.

BONNY BEST—Second early variety, valuable for canners. Medium-vine, vigorous. Medium-sized, apple-shaped, solid fruits, scarlet. 73 days.

BREAK OF DAY—Wilt, rust resistant. Medium large, bright red, smooth, globe-shaped. Very productive. 63 days.

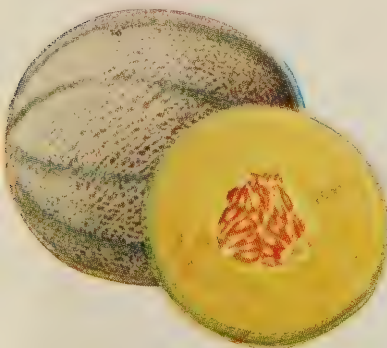
EARLIANA — Open, spreading, medium small vines. Red fruits run to medium size. Thick; smooth fruit. 66 days.

JOHN BAER—Thick, scarlet (similar to Bonny Best). Smooth, firm, medium large fruit. 70 days.

MARGLOBE—Moderately productive, with heavy foliage. Vigorous and resistant to wilt and rust. Fruits medium large, nearly round, smooth, and solid. Deep red. 77 days.

OXHEART—Plant open, spreading. Moderately productive. Fruits large, roughly heart shaped, pink, meaty and of mild flavor, 90 days.

SUNRAY—Compares favorably with the standard red varieties in shape, smoothness, quality and solidity. Fruits are bright, golden orange, deep-globular, $2\frac{1}{2}$ to $3\frac{1}{4}$ in. across, $2\frac{1}{4}$ to $3\frac{3}{4}$ in. in depth, heavy and really delicious. Fusarium wilt resistant.



MUSKMELON, Hale's Best

PONDEROSA—One of the largest varieties. Spreading large vines. Solid, fine flavored, pink, with small seed cells. Somewhat rough and flat. Have a tendency to crack, 88 days.

PRITCHARD'S SCARLET TOPPER—All America Top 12. Medium to large round, with thick, firm flesh and small seed cavities. Brilliant red throughout, coloring right to top, without hard green spots. Free from acidity, one of the best home canners. Early. Wilt resistant.

RUTGERS—Second early variety. Large thick stems, vigorous foliage. Fruits similar to Marglobe but flatter at stem end. Bright red, with thick walls. Red, firm flesh, low acidity, 72 days. Wilt resistant.

STOKESDALE—An extremely important development. Smooth 7-oz. fruit, brilliant color, exceedingly solid flesh and small seed cavities. Matures in the second-early group, a full week earlier than Marglobe.

STONE IMPROVED—Medium late. Ripens evenly and is uniform. Fruits large, flattened but deep. Smooth, attractive, scarlet-red, of fine flavor, 86 days to maturity.

VALIANT—Plant sparse and open. Fruits large for an early variety, globe shaped and of bright scarlet color.

SMALL FRUITED—Red and yellow varieties, shaped like miniature pears, plums, and cherries; very attractive for preserves.

TURNIP

For summer greens or roots, sow as early as radishes and lettuce. Then cut when plants are 6" high. Sow again in summer for fall and winter use. Turnips do best when most of their growth is made in autumn or early spring. Should be grown rapidly for best flavor and for finest texture.

GOLDEN BALL OR ORANGE JELLY—Medium size, deep yellow with bronze-green top. Creamy yellow flesh of fine texture. 65 days.

PURPLE TOP WHITE GLOBE (fr)—Large, sweet tops, Smooth, globe-shaped roots, purple-red above, white below. Sweet tender, crisp, white flesh, 50 to 60 days.

PURPLE TOP STRAP LEAF—Home and market garden variety. Deep purplish-red on top, white below. Flesh white and never stringy.

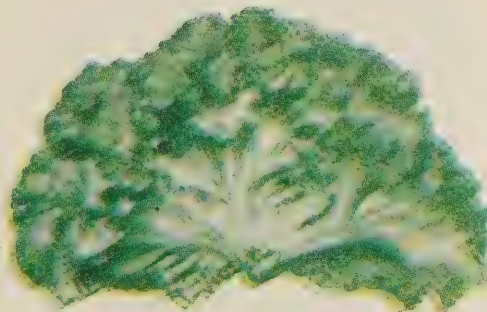
Foliage Turnip

SEVEN TOP OR WINTER GREENS — For greens or forage. Young shoots extremely tender. 50 days.

Rutabaga or Swede Turnip

AMERICAN PURPLETOP—Hardy and productive. Tender firm, light yellow, sweet flesh, 88 days.

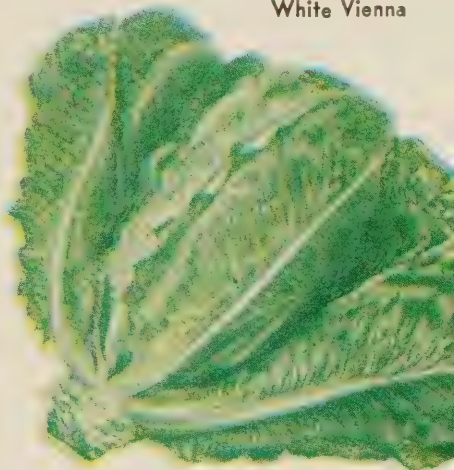
**ALL PRICES
IN THIS CATALOG
ARE SUBJECT TO CHANGE
WITHOUT NOTICE**



LETTUCE, Early Curled Simpson



KOHLRABI
White Vienna



COS LETTUCE



TOMATO, Marglobe

CARROTS,
Chantenay



VEGETABLE GARDEN PLANTING GUIDE

"TIME TO PLANT" KEY

A—As soon as soil can be worked.
B—Week before last spring frost.

C—In time to allow maturity before freeze.
D—When danger of hard freeze is over.

E—Two weeks before last spring frost.

	Seed Required for 50 ft. of row	Distance Between Rows (inches)	Distance Apart In Row (inches)	Depth to Plant (inches)	Time to Plant	Days Growing Period	Edible Period	Approx. Yield Per 50 ft. of Row		Seed Required for 50 ft. of row	Distance Between Rows (inches)	Distance Apart In Row (inches)	Depth to Plant (inches)	Time to Plant	Days Growing Period	Edible Period	Approx. Yield Per 50 ft. of Row
ARTICHOKE	1/8 oz.	48	48	1/4	A				MUSKMELONS	1/2 oz.	60	48	3/4	F	90-120	3-4 wk.	50 fruit
ASPARAGUS	1/2 oz.	24	20	1/2	A	2-3 yr.	4-5 wk.	25 lbs.	MUSTARD	1/4 oz.	24	9	1/2	A-C	28	until fall	1 bu.
BEANS, BUSH	1/2 lb.	24	4	1 1/2	B	50-70	4-5 wk.	20 qts.	OKRA	1 oz.	36	15	1	F	50	until fall	450 pods
BEANS, LIMA	1/2 lb.	24	3	1	B	60-90	3-4 wk.	32 qts.	ONIONS	1/4 oz.	18	4	3/4	A	110-140	4-8 wk.	1 bu.
BEANS, POLE	1/2 lb.	36	8	1 1/2	B	60-90	6-8 wk.	30 qts.	ONION SETS	1 pt.	12	6	1/2	A	50-100	4-8 wk.	60 bun.
BEANS, POLE LIMA	1/2 lb.	48	8	1 1/2	B	88	3-4 wk.	1 1/4 bu.	PARSLEY	1/4 oz.	12	6	1/2	D	90-120	until fall	45 bun.
BEETS	1/2 oz.	24	3	1/2	A	55-100	4-6 wk.	1 1/4 bu.	PARSNIPS	1/2 oz.	18	4	1	A	100-150	until fall	1 bu.
BROCCOLI	1/8 oz.	24	24	1/2	A	80-120	8-10 wk.	25 head	PEAS	3/4 lb.	24	2	1	A	50-70	1-2 wk.	1 bu.
BRUSSELS SPROUTS	1/8 oz.	24	18	1/2	A	70-110	6-8 wk.	15 qts.	PEPPERS	1/8 oz.	30	20	1/2	F	100-140	until fall	300 fruit
CABBAGE	1/4 oz.	24	12-24	1/2	A	75-130	4-6 wk.	35 head	PUMPKIN	2 oz.	96	60	3/4	F	90-120	until fall	25 fruit
CHINESE CABBAGE	1/2 oz.	24	12	1/2	C	75-85	4-6 wk.	40 head	RADISH	1/2 oz.	12	2	1/2	A	25-30	1-2 wk.	50 bun.
CARROTS	1/4 oz.	16	3	1/2	A-C	65-85	6-8 wk.	24 qts.	RHUBARB	1/2 oz.	48	48					100 stem
CAULIFLOWER	1/4 oz.	24	20	1/2	A-C	65-90	1-2 wk.	25 head	RUTABAGA	1/8 oz.	24	6	1/2				1 bu.
CELERY	1/8 oz.	24	6	1/4	D	100-140	6-8 wk.	100 stalk	SALSIFY	1/2 oz.	18	2	1/2	A	130-150	fall	300 roots
COLLARDS	1/4 oz.	30	18	1/2	C	24-36	until fall	3 bu.	SPINACH	3/4 oz.	18	5	3/4	A-C	40-60	1-3 wk.	1 1/2 bu.
CORN, SWEET	4 oz.	36	9	1	E	65-100	1-2 wk.	100 ears	SPINACH, N.Z.	1/2 oz.	36	18	1	D	70	until fall	50 lbs.
CORN, POP	3 oz.	34	8	1	E	115			SQUASH, BUSH	1/4 oz.	48	48	1	F	60-80	until fall	60 fruit
CUCUMBER	1/2 oz.	48	36	1/2	F	60-100	4-6 wk.	100 fruit	SQUASH, WINTER	1/4 oz.	72	72	1	F	100-140	fall	35 fruit
EGGPLANT	1/8 oz.	36	24	1/2	F	110-150	until fall	75 fruit	SWISS CHARD	1/2 oz.	18	15	1	A	50-60	until fall	25 lbs.
ENDIVE	1/2 oz.	18	12	1/2	A	80-100	3-4 wk.	50 head	TOMATOES	1/2 oz.	40	36	1/2	F	100-150	6-12 wk.	2 bu.
KALE	1/2 oz.	32	22	1/2	A-C	70-100	until fall	50 plants	TURNIPS, ROOTS	1/4 oz.	18	4	1/4	A-C	50-70	1-3 wk.	1 bu.
KOHLRABI	1/4 oz.	24	6	1/2	A-C	55-75	2-3 wk.	1 bu.	TURNIPS, GREENS	1/2 oz.	12	4	1/4	A-C	50-60		1 1/2 bu.
LETTUCE	1/4 oz.	18	12	1/4	E	90-120	3-4 wk.	50 head	WATERMELONS	1/2 oz.	60-96	60-96	3/4	F	90-130	3-4 wk.	20 fruit

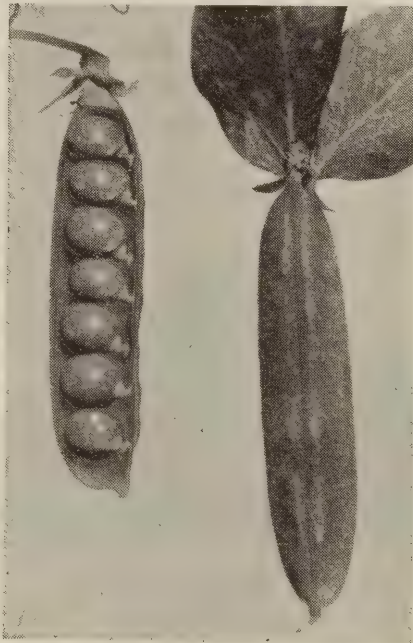


CALIFORNIA WONDER PEPPER

Recommended for the market grower as well as the home gardener. A prolific grower, each fruit is about 4 inches long by 3 1/2 inches wide. For cooking stuffed, the California Wonder is always a good choice. When chopped, its sweet flavor makes it an excellent addition to salads. 75 days.

LITTLE MARVEL PEA

One of the heavier yielding peas. Vines are about 18 inches high. The 3 inch pods bear 7 or 8 large peas. The pods are square ended, nearly rounded in diameter and tightly packed. They are very tender and light green in color. A good choice for freezing. 62 days.



EARLY SCARLET GLOBE RADISH

Bright red skinned, white fleshed with a slightly elongated globe shape. Delicious and consistently good. It grows to perfection in rich, loose prepared soil. Radish growth should be quick to get that desirable tasty crispness. Radishes left in the ground too long become bitter and pithy. Matures in 24 days.

Careful Thinning Increases Yields

There is no satisfactory way to avoid thinning. When too many come-up, be thankful and consider the thinning out as an opportunity to select the best plants as the ones to survive. For best results, thinning should be done gradually. In case of a crop which grows best when the plants stand four inches apart, do not at first thin it to one plant for each four inches. It is foolish to discard all excess plants prematurely when accidents, insects or disease may destroy many which are left. If thinning is done by stages as the plants grow, they will finally stand at the optimum distance from each other, and there will be small chance of vacant spaces in the row.

Lettuce plants, thinned to stand an inch apart, will soon reach a size when alternate plants can be removed to make a salad; and this process may be continued until the spacing is right for the remaining plants to mature.

Carrots may be thinned the first time when they are as thick as a pencil; and a dish of the thinnings will give those who have never eaten such tiny carrots before, a new idea of this vegetable.

Beets may be allowed to grow until about six inches tall, when their roots have just begun to swell.



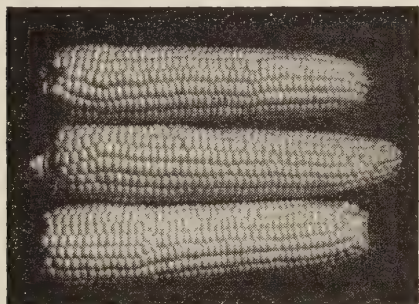
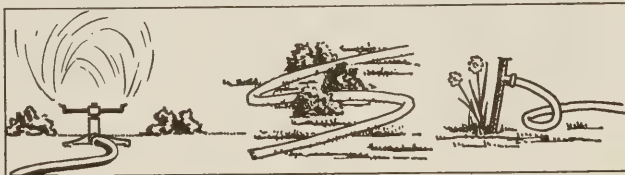
The Importance of Correct Watering

Except for transplants, try to avoid watering the garden until it really **needs** water. When you do water, **soak**, don't sprinkle. Do a thorough job. The hose or sprinkler should be allowed to run on one spot until the water stands on the surface in a pool.

After watering, the soil should be moist to a depth of five to six inches. Check this with a spade or a stick to be sure. Never apply water with such force that the top soil is washed away. Use an "Iri-gator" which allows water to ooze through the pores, or remove the nozzle of the regular hose and let the stream run out on a board. Another effective method of good soaking is to allow the water to run off a paper sack.

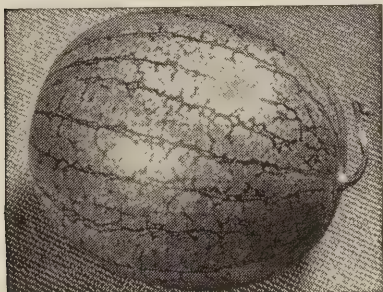
Overhead sprinklers do waste some water, but also, **they do prevent washing**. Watering in the evening or early morning means that the moisture sinks in and is absorbed by the soil before it can evaporate.

Watering tomatoes calls for special care. Cracks and "blossom end rot" (the free or blossom end turning black) are both caused by fluctuating water supply. Never let tomatoes be dry one week and wet the next. Tomatoes must be kept either moist constantly or be grown in dry soil, without artificial watering.



NEW HAMPSHIRE MIDGET WATERMELON

Refrigerator size, chock-full of strawberry-red flesh of fine flavor. Grows on a small vigorous vine. Contains large black seeds for its size. Has been recommended where large size watermelon do not mature satisfactorily. 78 days.

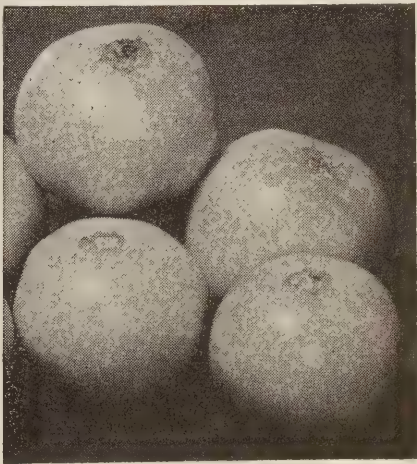


IOCHIEF CORN

A yellow F₁ hybrid with sensational qualities. Sugar sweet and tender. Stays prime longer. Has rich golden color. Large ears with deep kernels. Rigid, rugged stalks with a luxuriant heavy foliage.

JUBILEE TOMATO

A bright golden orange, deep globular shaped tomato that grows about 2½ by 3 inches in size. Has a mild delicious, definite flavor that is free of acidity. Is excellent served alone or along with red varieties. Jubilee is thick walled and has relatively few seeds.



BUTTERNUT SQUASH

Dry sweet yellow flesh of superb texture and excellent flavor. An unusual garden novelty. Butternut has only a small seed cavity, is tasty baked or boiled. Easily grown and a good keeper. Fruits are three to four pounds and 8 to 10 inches long.



Lawn Seed

FOR EVERY NEED

FOR SUNNY SPOTS

Exposed areas in bright sun tend to "burn out." There is no one kind of seed that will take care of all situations the year round. But there is a best seed or blend for your sunny lawn and we know them. Let us help you plan and grow your lawn.

. . . OR SHADY LOTS

Ordinarily, establishing a good lawn in a shady area is a difficult situation. Absence of sufficient sunlight causes many types of lawn seed to quickly die out or even fail to germinate. Wherever this problem exists you need our Special Shade Mixture. These are excellent shade enduring grasses and clovers that have given good results on many shaded lawns here.

. . . OR SPECIAL NEEDS

Parks, playground, and golf courses need their own types of grass . . . all different. We have the right seed for all special uses. Just bring your problem to us . . . we'll furnish the seed you need and the know-how it takes to make it grow.

How Much Seed?

Skimpy seeding is costly in the long run. Plant enough to get a thick, heavy mat of grass and you'll need far less reseeding. The wise minimum for new lawn planting may be figured from this table:

Size of plot	Square feet	Amount of seed
10x20	200	1 lb.
20x50	1,000	5 lbs.
20x200	2,000	10 lbs.
50x100	5,000	25 lbs.
100x100	10,000	50 lbs.

For re-seeding, use at least half the amount.

The least expensive item in any lawn is the seed. Time, labor, fertilizer and care can all be wasted if the right seed is not used. Why waste time on doubtful, unadapted seed from unknown sources which may contain grasses unsuited to this territory when the best is right here in our store?

In addition to the best in grass seed your lawn will need intelligent care in applying the right fertilizer at the proper time, in using the best weed controls to keep out undesirable growth, and in getting the best tools for cutting, raking, edging, watering and all other operations in maintaining your lawn. Our store is headquarters for all of the tools and supplies needed to make and maintain your lawn. In addition we have the "know-how" that will help you to have the best lawn with the least amount of money and time.

ASTORIA BENT

Produces numerous root stocks which spread underground and throw up new shoots, making a very thick turf. This Bent has a good color and is excellent for lawns and putting greens. Does not require as much cutting as Creeping Bent.

SEASIDE BENT

A true creeping Bent. The plant is dwarf, and multiplies rapidly by sending out runners in all directions. With proper watering and care, it makes a strong, enduring turf. If damaged it heals over promptly.

CHEWINGS FESCUE

A superb grass to grow in rather shaded areas and even on fairly acid soil and under other unfavorable conditions. Plants grow low, make a dense turf. Often used for putting greens and fairways.

RED TOP

Particularly suitable for wet, low spots, as it stands wet weather or even overflowing, better than other grasses. Also does well on almost any good, rich soil. Often thrives where Blue Grass fails—and therefore makes an excellent supplement for it.

OUR FINEST LAWN MIXTURE

Our Selected lawn mixture is a combination of the finest quality seeds—which we have developed after years of experience. All the grasses in it are fine-bladed and deep-rooting. There just isn't any better combination than this for the lawns of our territory!

KENTUCKY BLUE GRASS

Produces a deep dark green lawn of close thick turf. Maintains its green color until late in fall. Roots are deep, and plants are very hardy.

DOMESTIC RYE GRASS

A quick-growing annual, valuable in lawn mixtures as a nurse crop, to keep lawn green while better, slow-growing varieties are becoming established. Succeeds well on almost any soil.

PERENNIAL RYE GRASS

A quick growing grass, most suitable for mixtures. Succeeds on almost any soil not water sogged.

WHITE DUTCH CLOVER

Although not a grass. White Clover is very desirable in lawn mixtures because of its rapid, low growth and creeping stems. Valuable as a green cover for poor ground. Succeeds best on moist ground or during wet season.

OTHER GRASSES

Besides the lawn grasses listed here, we can also supply just about any other grasses you may need. We carry a complete line of all varieties that can be successfully grown in this part of the country. Just tell us what you want!

OUR SPECIAL SHADE MIXTURE

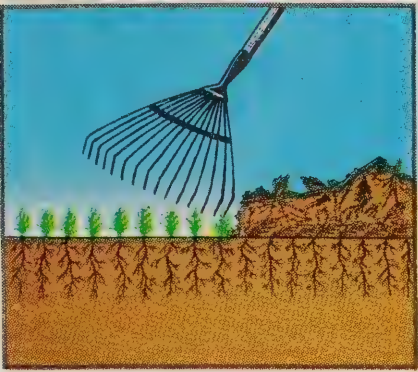
Our Shade lawn mixture is a scientifically developed blend of top quality shade enduring grasses and clovers. We've been getting excellent results with it for years and believe it will produce results anywhere that grass can be made to grow.

GEO. KELLER & SONS

909 MAINE STREET

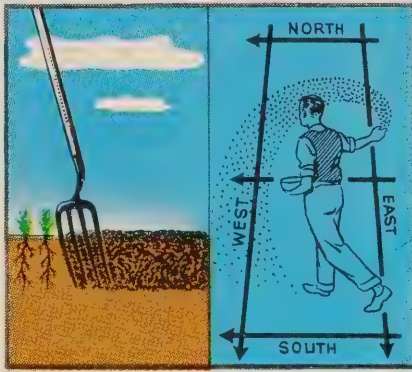
QUINCY, ILLINOIS

LAWN CARE SUGGESTIONS



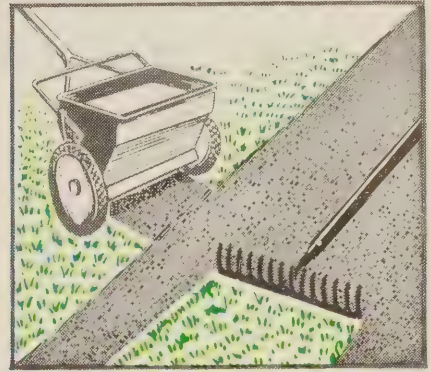
WHISK, DON'T RAKE

Accumulations of debris and leaves on the lawn chokes off growth of new grass and permits nests for harmful insects. A thorough whisking (not a heavy raking that uproots new grass) in early spring and late fall when the weeds have stopped seeding gives old and newly germinated grass a head start in the battle against weeds. Experts recommend that **short** clippings be left on the ground. Long clippings should be gathered.



STARTING OVER, SOMETIMES PAYS

(Left) To insure growth from those bare and persistently thin areas: Reseed them as though starting a new lawn. Dig up and pulverize the soil in the bare areas and mix with a balanced fertilizer. Reseed, then roll it sufficiently to press the seed into the soil. (Right) When sowing lawn seed in large areas, choose a windless day. Sow in two directions; one at right angles to the other.



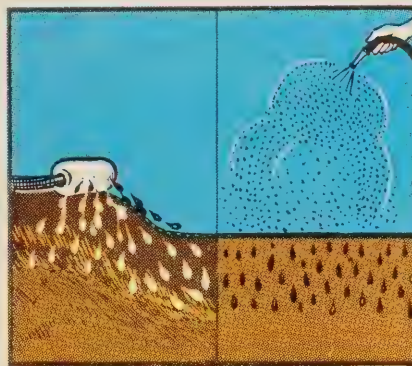
GOOD GRASS MUST BE FED

Established grass roots are notoriously heavy feeders. An early spring and late fall application of a balanced plant food plus a mid-summer stimulator will keep those grass roots busy delivering a healthy, lush, carpet of green. Apply uniformly at about 3 lbs per 100 square feet when the grass is dry. Brush the plant food off the blades with the back of a rake; then water thoroughly.



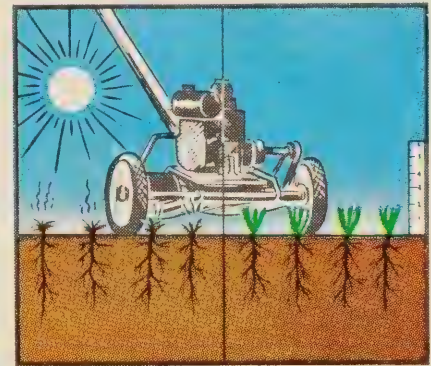
HOW MUCH, OR HOW MUCH WHAT?

In most cases, properly **blended** grass mixtures are best for year round growth. Lawn mixtures contain varied proportions of **expensive** and **inexpensive** seed. The cost of your lawn seed should be determined by the **known percentage** of these proportions not by the pound of mere "lawn seed." When you buy our lawn seed mixtures the blend is right and the price is right. Whether you are planning a new lawn or rebuilding, come in and talk it over.



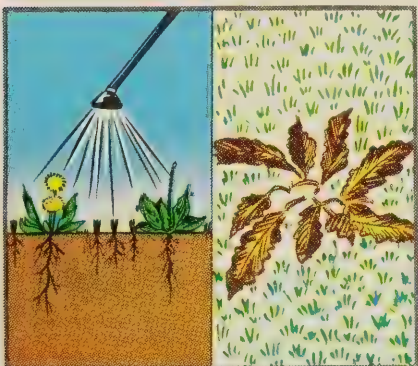
TWO WATERING IDEAS

(Left) Watering slopes should be done by **soaking** from the top, this permits the crest to get an adequate water supply before it runs off to the bottom of the hill. (Right) Sprinkling newly seeded areas should be done with a misty spray not a stream, either by hand or with an efficient sprinkler, otherwise the seed will be displaced and gather in pools, thus ruining the even distribution of your sowing.



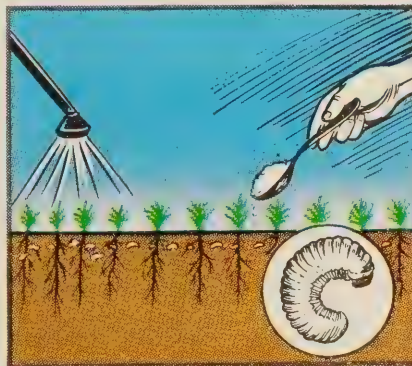
HOW LOW TO MOW

Mowing too close or "scalping," allows the hot summer sun to quickly "burn out" your lawn, destroying newly germinated grass which is left unprotected by shade and so weaken the plant structure that it cannot survive competition against weeds and insects. Mower cutting height should be about one and a half inches. Cut when growth reaches two and a half inches. Vary the route of your cutting.



OUR WEED KILLERS DO IT

Get the weeds before they seed. The earlier the start the easier they can be controlled later on. Our selective 2-4-D preparations, crabgrass killers and other special types, sprayed on weeds, now makes a formerly difficult chore a comparatively easy one. They stick to weed leaves and are ultimately absorbed into the root system—the leaves turn brown within a few days and in about three weeks they are dead.



GRUBS CAN DO HEAVY DAMAGE

Beetle grubs feed on grass roots and are extremely destructive, once the infestation is established. Beetles lay their eggs in the ground near the grass roots during the summer months. The hatch (grubs) feed and sever the grass roots during the fall. A lawn turning brown in patches should be examined closely at a three inch depth for grubs. Use our rotenone sprays or poison feed applications to bring them under control.

LAWN TROUBLES? CALL ON US

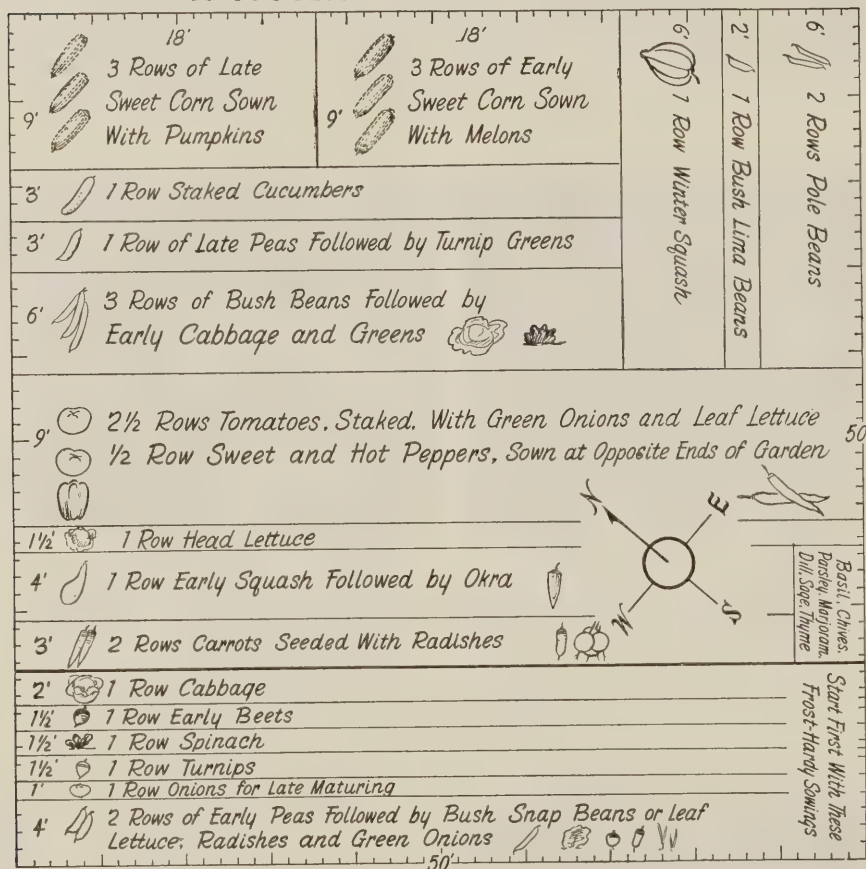
If you have some special problem with your lawn and haven't been able to correct it, call on us. We've been working with lawns right here in this area for years and know the right seed and right diagnosis for nearly any lawn problem you might have. Drop by and see us today.

PLANS FOR PLANTING A

Garden

The diagrams below are carefully planned for maximum production of foods for a balanced diet. Varieties suggested will produce vegetables throughout an entire season with some that are resistant to early freezes. Plan for intercropping and succession cropping too so your garden will be working full time and give maximum production. Since the exact size and shape of the garden must conform to the space available, each plot is an individual project in layout. These plans are offered as a sound starting point.

A SUGGESTED 50' x 50' GARDEN



PLAN NO. 1 (above) will produce a balanced diet for a family of four. Notice that corn is planted in a square plot instead of a lengthy single row; this provides a better chance for pollinization which is very important in producing maximum yields. Remember to plant the tall growers to the north so they won't shade the low growers. Climbing vine crops and tomatoes can be tied to adjoining fences thus saving space and staking work.

PLAN NO. 2 (at right) provides a good variety of foods, however, for space conservation this small garden has no sweet corn.

Preferences in foods vary with each family, therefore, varieties to be planted and length of rows should be adjusted accordingly to individual tastes. Plans No. 3, No. 4, and No. 5 (below) offer some alternate planting ideas.

PLAN NO. 3

- Row No.
- Mustard
 - Garden Cress
 - Summer Squash
 - Spinach
 - Spinach
 - Beans—Lima or Green Soy
 - Bush Beans followed by late Lettuce
 - Bush Beans followed by Cauliflower
 - Bush Beans followed by Cauliflower
 - Late Peas followed by late Cabbage
 - Midseason Peas followed by late Cabbage
 - 2nd early Peas followed by Rutabagas
 - 1st early Peas followed by Brussels Sprouts
 - Carrots, Radishes, followed by Kohlrabi
 - Early Beets followed by Carrots, Radishes
 - Lettuce followed by late Beets
 - Kohlrabi followed by Endive

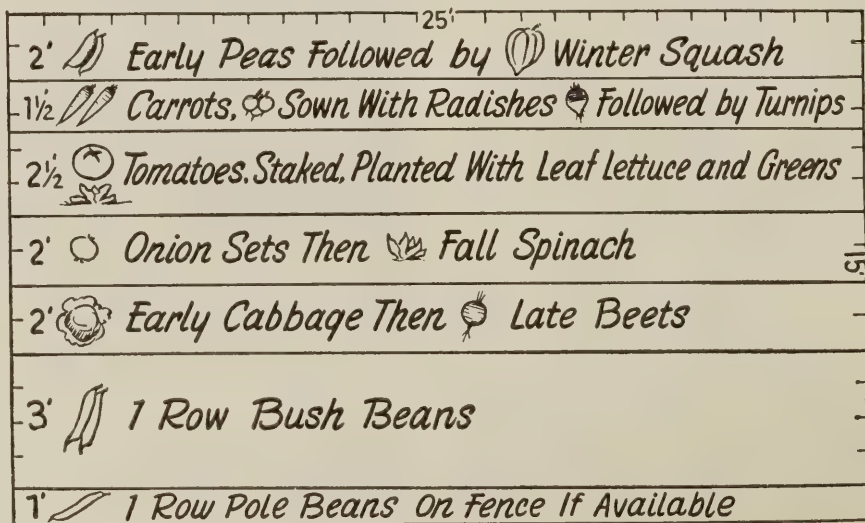
PLAN NO. 4

- Row No.
- Radishes followed by Sweet Corn
 - Green Onions followed by Sweet Corn
 - Tomatoes interplanted with Peas
 - Tomatoes interplanted with Peas
 - Early Cabbage followed by Turnips
 - Beets followed by Cabbage
 - Potatoes or Onion Sets
 - Carrots followed by Bush Beans

PLAN NO. 5

- Row No.
- Sweet Corn
 - Radishes followed by Sweet Corn
 - Tomatoes interplanted with Lettuce
 - Early Peas . . . mid-season Peas . . . late Peas (1/3 row each, planted at 2-week intervals)
 - Early Cabbage followed by Turnips
 - Beets followed by Cabbage
 - Carrots followed by Bush Beans

PLAN FOR A 25' x 15' GARDEN





PLANT FOR

Home Economy AND IMPROVEMENT

The basis of garden success is the soil. Usually we have to work with what we have, but even if it is not good soil to begin with, much can be done to improve it.

The ideal soil has four (4) definite qualities:

- (a) **It is easy to work with (crumbles readily)**
- (b) **It contains plenty of humus, (partially rotted vegetable matter)**
- (c) **It has sufficient quantities of available plant food**
- (d) **It is well-drained.**

If yours is not the ideal soil, here are some of the things you can do:

TOO HEAVY SOIL

Heavy soil which will bake hard and not drain properly can be made friable (crumbly, loose) by working in one of the **new chemical soil conditioners, peat moss or vermiculite**, or old ashes, fine cinders, humus, fine gravel or fine limestone screenings. This will make the soil workable as well as letting excess water escape, admitting air into the soil, and permitting roots to grow freely.

IF SOIL NEEDS CONDITIONING

If your soil needs improving, it can be greatly benefitted by application of one of the new soil conditioners or of well-rotted stable manure, leaf mold, grass clippings, compost and other forms of decomposed plant material. **Use up to 1 bushel per square foot.**

When breaking new sod, if there are weeds or sod on the ground, apply lime and fertilizer to hasten decomposition, then turn under. These materials should be worked into the soil. They help to hold moisture, aid in drainage, prevent rapid changes in soil temperature, and are a source of food for soil bacteria and other micro-organisms which work in the soil to liberate nutrients for plants.

Apply these materials before spading or plowing.

Note, too, that when you put fertilizer into the newly spaded soil, it must be thoroughly worked in, so as to get it well distributed.

SELECTING THE SITE

If possible select your garden site near the house and close to a **water supply**. It should be in an area which has at least six hours of sunshine daily. The convenience of access plus the opportunity of frequent observation of your garden are distinct advantages in having it close by.

Moving the garden hose is much easier if your site is near water outlet.

If your garden is to be located on a slope, plan your rows to run laterally on the slope. Rows that run down-hill will **wash away valuable fertilizers and top soil during heavy rains**. Also the water runs away without fully benefitting your garden.

SPADING AND PLOWING

The spade and the spading-fork are tools used to dig the soil in preparation for sowing and planting. **The chief objects are to bury weeds and manures; to fine and aerate the soil and increase its porosity; to bring plant foods from lower levels nearer to the surface and to provide deep, loose friable soil.** If there is any slope to your garden, start at the lower end, as the natural tendency is for soil to work down grade.

There's a trick to spading for best results.

Drive the spade or spading fork straight down. Dig a trench and lay the soil from the trench, aside at the end. **Now spade with the blade not parallel to the trench, but at right angles to it.** Lift it up and turn the spade over so that the top-soil, humus and plant food which you have added are dropped underneath and into the trench you have spaded previously. When the last row is dug, carry the soil removed from the first row to fill in the last trench. If the good soil is deep, spade to a depth of 8 to 12 inches. If the top soil is shallow, avoid digging up the subsoil. **Pulverize the soil, breaking up the clods with an iron rake and remove stones or trash.** Just before planting any area of the garden, work that part finely and smooth off with a rake before laying out the rows.

If you must plow, be sure the soil is right. Many good plots have been ruined by plowmen who insist on working when the soil was too wet. Before you decide on machine work, consider this: **by working only an hour a day for five days, a man of average strength can dig a good-sized garden and leave the soil in better condition than the ordinary tractor job, worked with farm equipment usually too heavy for garden use.**

BUILDING A LAWN

- 1—Spade or plow area to an 8 or 10 inches depth. Pulverize the soil thoroughly.
- 2—Distribute uniformly over the area, a well balanced fertilizer at the rate of four pounds per hundred square feet.
- 3—Work the fertilizer into the soil with a rake.
- 4—Carefully seed with one of our fine blends in the quantity recommended for the specific grass types. Sow half lengthwise and half crosswise for even distribution on a windless day.
- 5—Roll well with a lawn roller to impress the seed into the soil. If the area is a small one use a wide flat board on the seeded area; walk heavily back and forth over it.
- 6—Water well with a fine mist so the seeds do not become dislodged. If the normal moisture is enough to keep the lawn slightly damp do not water it again until the seed has germinated.



HOME ECONOMY AND IMPROVEMENT

GARDEN SANITATION

About 75% of the work and much of the damage caused by insects can be eliminated by a simple, regular program of sanitation. **Preventive dusting or spraying is much easier than waging a losing battle against bugs when they appear.** Usually, less than 30 minutes a week should be needed for a regular sanitation program for both flowers and vegetables.

Along with a regular program of insect control, **plan on destroying weeds along the edges of your garden,** the place where insects hide during the winter. If possible, control the weeds for a distance of at least 25 feet on all sides of the garden. Not only will this eliminate insect hiding places, but it will reduce the number of weed seeds that might otherwise blow onto your garden. This program involves two chemicals.

Apply a 5% dust of D.D.T. to the grass and weeds about every three weeks, so that most insects that might otherwise move into the garden will be killed. So will mosquitoes, chiggers and harvest mites that can make gardening so unpleasant.

BUILDING

A COMPOST HEAP

The compost heap is a "must" for the permanent garden. Select a spot behind a shed or otherwise hidden (if your garden is in the open) and spread out your garden wastes over this area in a layer six inches deep. Use weeds, old vegetable and flower plants, vegetable waste from the kitchen and lawn clippings. Trimmings from lawn edging are particularly valuable.

On each six inch layer, sprinkle a little lime and a liberal amount of a good mixed fertilizer. The fertilizer will feed the bacteria that cause the vegetable wastes to decay. Then apply a layer of good garden soil over the lime and fertilizer. **Repeat until the pile is two feet high. Wet down if rain doesn't fall.**

In six months all weed seeds and other vegetable matter will be broken down by the bacteria into a rich, home made "manure" that will go a long ways toward making yours a perfect soil.

You need not waste the space used for the heap, since cucumbers, melons and squashes never grow as well as when planted in shallow depressions in the compost heap.

STARTING WITH SEED BEDS

A shallow box is probably the most widely method used for starting seed indoors. Place pieces of broken clay pots over drainage cracks to prevent clogging. Spread some soil lumps over the bottom before you fill the box with soil.

Mix equal parts of sand, soil, and peat moss. Pile high in the box. **Press down firmly on the sides with your hands.** Scrape off surplus soil with a board or tamper. Firm loose soil until it is spread evenly about $\frac{3}{4}$ inch below the top of the seed box.

Then, mark off straight rows about 2 inches wide. **Sow seeds uniformly thick, just so they don't touch.** Use an old kitchen sieve to screen soil over the top after the seed are sown. **Do not cover with more than $\frac{1}{4}$ inch of soil.** Use the tamper to firm the soil over the seeds.

Water soil after firming. Place a strip of burlap over the box and pour water over it. **Never pour water on the bare soil.** Another effective way of watering is to place the box in a pan of water. Cover the box with newspaper or a piece of glass to prevent fast drying. **Keep moist.**

When seedlings appear, remove the newspaper. If you are using glass, leave it on a little longer, but slide it over a bit to give air.

TRANSPLANTING

Use care in transplanting or you will injure the tender plants.

When soil is sufficiently moist so a ball of soil can be retained around each individual root there is less chance of injury or of air pockets being left around roots. Use a trowel. **(It is important that roots be kept in close contact with soil so they can get moisture.)**

When seedlings are to be transplanted without a ball of soil, long tap roots should be shortened, and the whole root system placed and "firmed in" so that it is well spread out, not bunched. Soil in which roots are placed must be finely pulverized.

When roots have been carefully placed in position, firm the soil around each plant enough to insure that roots are in contact with the soil, and that there are no air pockets.

Transplant in cool, cloudy weather or at evening or early morning. The use of "Transplantone" will prevent transplanting shock.

As soon as the garden has been planted, water thoroughly but gently with a fine spray. This, by the way, is the only time we **sprinkle** a garden; once the plants are established, any watering should give the soil a good soaking.

WINDOW BOXES

One of the most effective ways for outside beautification of your house is by using Window Boxes.

Moisture and drainage must be considered in the construction of all window boxes. If it is a simple wooden one, it must be of some moisture-resistant material at least one quarter inch thick—the best woods are white pine, cypress or cedar. Three coats of varnish will help make the box water resistant. **Brass or copper screws must be used because they are rustproof.** Metal brackets are more practical than wooden ones.

The length of the window box should conform to the size of your window sill and the box should be at least 8 to 10 inches wide and deep. Bore a half dozen $\frac{3}{4}$ inch holes in the bottom so the water can escape. Place broken crocks, cinders or gravel over the holes to ensure good drainage.

Fill the box with a potting mixture of

- 1 part sharp sand
- 2 parts loam
- 1 part leafmold (or humus)
- $\frac{1}{2}$ parts dried cow manure
- 1 five-inch flower pot full of bone meal to each bushel of mixture.

Fill the box nearly to the rim, water and set aside for a day or two, so the soil will settle considerably before planting.

The plants must be set closer together than in the garden, but not so that they will appear crowded.

Evaporation is rapid in hot weather, and the boxes must be thoroughly watered early every morning and every evening after sundown. Pour the water on slowly and allow it to soak well into the soil. Don't let it stand on the surface. A little liquid manure or a good commercial fertilizer applied once a week will help in producing large, free-blooming plants.

Some suggested flowers for the window box are geraniums, petunias, lobelia, and practically all medium sized potted plants. The cheapest method of planting the window box is to plant seeds of annuals directly into the soil of the window box. Almost any annual that grows easily in the garden can be used.

Farm Seed

Alfalfa—The No. 1 soil builder and restorer. We carry a full range of varieties, adapted to this territory.

Millet—An excellent food for stock and poultry. Also a good green fodder and hay plant. Chokes out weeds.

Rape, Dwarf Essex—Highly recommended for pasture for sheep, cattle and hogs. Makes splendid green feed for poultry. Plant early spring in moist soil.

Sorghums—An excellent soiling crop furnishing succulent feed for milch cows. A large yielding fodder crop. A good range of varieties.

Soy Beans—The crop of many purposes. Excellent for hay, ensilage, grain, and soil improvement. Ground soy beans are as good or better than Oil Meal for mixing with grains for dairy ration.

Vetch—A great producer for hay, pasturage or silage. Good cover crop and soil builder. Needs only moderate moisture, grows in almost any soil.

CLOVERS

Alsike—Very hardy. Does better on moist land than other varieties of Clover. Suitable for hay or pasture. Good bee plant.

Ask for our latest
COMPLETE LIST
of varieties and prices
including many not listed
here.

Medium Red or June—The most valuable of the clover family. Makes two crops the second year. Does not exhaust the soil but enriches it.

Mammoth Red—Also called "Pea Vine" Clover. Grows large and coarse, often used for plowing under to enrich soil.

White Dutch — A very hardy creeping clover, adapts itself to great variety of soils and climates. Good pasture for sheep or cattle; fine for bees.

White Sweet (Biennial)—Excellent for pasture, hay and a soil improver. Drought-resistant.

GRASSES

Alta Fescue—New all-purpose-all-location grass. Highest yielding grass for pasture-hay-silage. Grows on wet or dry, acid or alkali soil. Takes a year to establish but lasts 20 years or more.

Brome Grass—Drought defying, resistant to frost and extreme heat alike. Very early, and stays green late in fall. Produces abundant pasture and enormous crops of high grade hay.

Kentucky Blue Grass—Excellent for pasture for all kinds of stock. Very hardy. Roots form tough sod. Requires two years to get well started, so often sown in mixtures with other grasses.



Orchard Grass — Hardy, quick-growing. Gives large yield of excellent hay. May be cut several times during season. Will grow in shady places.

Reed Canary Grass—Especially suited to swampy, over-flowed lands; but thrives on uplands where moisture is abundant. Makes splendid pasture, very early; lasts to late fall.

Red Top—Valuable for most soils. A good permanent grass. It should be grazed close. Grows successfully on alkali lands where other grasses fail.

Rye Grass, Domestic—Fast growing one-year grass. Yields abundantly and matures all in one season. Helpful as a nurse crop to other grasses.

Rye Grass, Perennial—A good pasture grass. Grows quickly and withstands drought reasonably well.

Sudan Grass—The ideal emergency hay and pasture crop for late planting. Never plant until ground is warm.

Timothy—Unsurpassed as a crop for hay. Relished by all kinds of stock, especially horses. Not suitable for permanent pasture. Should not be cut too early or pastured too late in fall.



ALFALFA (A)		SOYBEANS (S)	
Sweet, Bur, Hubam		Size	Retail
Clovers		2 bu. each\$.40
1 bu. each\$.55	5 bu. each60
CLOVERS (B)		25 bu. each 2.70
Red, Alsike, Crimson,		BEANS (D)	
1 bu. each\$.55	Navy, Pinto, Wax,	
LESPEDEZA (L)		String, Kidney and	
100 lb. size (Inoculates		Great Northern	
up to 100 lbs.....\$.55		1 bu. each\$.55
PEAS (C)		PEANUTS,	
VETCHES (All Varieties)		COW PEAS (E)	
100 lb. size (Inoculates up to 100 lbs.)		2 bu. each\$.40
.....ea. \$.50			

GARDEN SIZE — Peas, Beans, Sweet Peas, Lupines, Lima Beans and Edible Soybeans. Enough for 8 lbs. seed—Price 15c each.

SEED CORN

Our selection of seed corn is built on an intimate knowledge of the kinds that do best in this locality. We have the best kinds for our particular soil and climate.

More and more, the problem of seed corn is becoming localized as new hybrids are released. It is important to have those hybrids best fitted to your growing conditions.

We have the right hybrids for you! Ask about our selection . . . especially adapted to this region.

SEED TREATMENT

More and more the coating of seed with stimulating bacteria is gaining favor with production-wise farmers. We highly recommend seed treatment for higher yields, faster germination and growth. Be sure to ask us about it the next time you stop in.

SEED POTATOES

Our certified stocks are the most economical you can plant. They reduce your hazards to a minimum and give you bigger production with fewer culls.

WHAT ABOUT THE NEW

Soil Conditioners

Soil conditioning, in the broad, general sense, is anything but new. Ever since man first raised crops there has been soil conditioning of one kind or another, and if there hadn't been we'd probably still be living in trees or caves or burrows or wherever we first lived.

But in the narrower sense, as distinct from cultivation and fertilization, soil conditioning is of recent origin, or at least the idea behind it is. Anyway, in recent years, and up until this year, "soil conditioner" has usually meant peat-moss, leaf-mold, humus, composted garden refuse or any of quite a few crop by-products low in plant nutrients but consisting of organic matter.

Now, "soil conditioner" has been taking on a still narrower meaning to gardeners who've followed the news stories and advertisements of a host of products ending in "im," "il," "ir," "ack" and the like. It has come to mean a chemical of

Below is an eroded, grassless slope where grass is virtually impossible to grow, because the seed is lost by erosion before it can germinate.



Here is the same slope treated with Soil Conditioner. Use of the soil conditioner gives the seed a chance to germinate and provide good lawn growth.



some kind that "conditions" soil by causing the clay particles in it to stick together in small lumps or aggregates. This aggregation of clay particles makes the soil "loose" or "friable" in a somewhat different way than the addition of organic matter does, but apparently it serves pretty much the same useful purpose by increasing water penetration and retention, by making for better aeration, by facilitating plant root development, and so on.

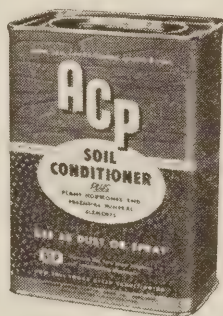
Quite likely the development of these new materials will prove to have been the most important thing that happened to gardening around the mid-point of this century. Its impact on the minds of gardeners—highlighting the nature and importance of soil structure—is alone enough to benefit gardening more than anything else that's turned up in late

years. And even if the soil conditioners themselves do less than one-tenth what some people expect them to do they'll still have worked minor wonders on gardening progress.

Just how some of these new materials will work for individual plants in individual gardens only time will tell. It goes without saying there'll be reports of unqualified success and others of complete failure, and although there'll be reasons for both it may not always be easy to pin them down. The recommendations for using some or all of the products will probably be revised from time to time and the same goes for the directions on the packages and the claims of the advertisements. The materials are that new.

Reprinted Courtesy
THE FLOWER GROWER

Turn
Clay Soil
into
Crumbly
Topsoil



ACP SOIL CONDITIONER

Contains the two best-known soil conditioning chemicals (including the *only* time-tested one), *plus* hormones, fertilizer and essential mineral elements. Because it contains both conditioning chemicals, ACP Soil Conditioner affects the widest range of soils, and *readies* the soil for the full benefit that hormones, fertilizer and mineral elements can provide. Apply ACP Soil Conditioner as dust or spray—dust on moist soil, spray on dry soil.

8-oz. shaker canister \$1

2½-lb. shaker canister \$3.55

10-lb. canister \$10.90

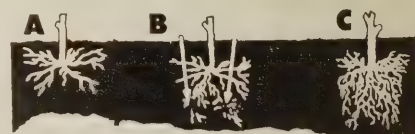
All You Need
To Make Stuff Grow

GRO-STUF

a concentrated liquid fertilizer
for root or foliage feeding

A balanced 20-20-20 formula—nitrogen, 20%; phosphoric acid, 20%; potash, 20%. Also hormones and trace elements. Use it on trees, shrubs, flowers, vegetables and lawns.

1-lb. can \$1.25 • 4-lb. can \$3.75



Grow prize winning
flowers & vegetables

Surface feeding (A) causes surface roots; dry local feeding (B) may burn rootlets. But Plant Marvel (C)—a scientifically balanced, food completely dissolved in water—uses Nature's LIQUID feeding method. You force deep, widespread, sturdy roots. Use it for luxuriant leaves, huge blooms, luscious fruit & vegetables.



PLANT MARVEL

\$1.25 CAN

Makes 250 gallons liquid plant food! Order a supply today.

**NO
WORK...
NO
DIGGING
IN...**



**JUST SPRINKLE ON
DREER'S
Miracle
Soil Conditioner
fluffium**

Developed specially for home lawns and gardens. 1 gallon conditions 1000 to 1500 sq. ft. \$9.95. 1/2-gal., \$5.50. 1-qt. \$3.



**Complete
Lawn**

**From One Handy
SELF-SOWING Package
DREER'S
Amazing
reddi-GRO**

Seeds and feeds all at the same time. Crowds out crab grass. 4-lb. Package covers 1200 sq. ft. of established lawn or 700 sq. ft. of new lawn, \$3.75. 2-lb. pkg., \$1.98.

**TRIPLE 20
PLANT FOOD
20-20-20 ANALYSIS**

**RAISE AFRICAN VIOLETS?
FLOWERS, VEGETABLES,
LAWNS?**

Triple 20 Concentrated Plant Food will grow beautiful healthy blooms and crops. Makes grass grow thick and fast. Instantly and completely water soluble. Contains all needed food elements. Immediately absorbed by plants for faster growth than common, slow eating dry fertilizers. Simply apply as you usually water plants for foliage and root feeding. Won't burn plants. Best for starting cuttings and transplants. Also to soak seeds. 1 lb. feeds 50 sq. ft. of row, 1,000 sq. ft. of lawn.

Another Guaranteed Carbola Product
Carbola Chemical Co., Natural Bridge, N.Y.

Plant Foods

Aluminum Sulphate—Used in creating acid soils needed for successful culture of Azaleas, Rhododendrons, etc.

Bone Meal—All-purpose fertilizer rich in nitrogen and phosphoric acid.

Gro-Stuf—20% nitragin, 20% phosphoric acid, 20% potash, plus hormones and trace elements. Highly concentrated, yet non-burning.

Hy-Gro—Extra-highly concentrated plant food, quickly soluble in water. Excellent starter solution and all-around fertilizer.

Hyponex Plant Food—Can be used in dry or liquid form; teaspoonful makes 1 gallon. Contains Vitamin B1.

Lime (Hydrated)—Sweetens sour soil for lawns, and clover. Is used as a reducer and in combination with many insecticides; for whitewash, deodorizing.

Nitrate of Soda—Very quick source of nitrogen. Hastens maturity of crops. Should not be applied until plants are well above ground.

Plant Marvel—One can makes 250 gallons of liquid plant food. Encourages deep root growth. Never burns rootlets.

Plantabbs—Clean white odorless plant food tablets for indoor or outdoor use.

Rose Food—A balanced combination of organic ingredients, selected for the particular "make-up" and sequence availability that roses need. Improves the color and size of your roses.

**HY-GRO
SOLUBLE PLANT FOOD**

(13-26-13)

**For flowers,
potted plants,
vegetables and lawns**



Brings a balanced diet right to the roots. Use according to directions on package for starter solution and transplanting. Easy to use.

3 oz. 30c—20 oz. \$1.00
—10 lb. \$4.50. Also in 25,
50 and 100-lb. sizes for
estates and larger growers.

**Ask for
FREE booklet**

A PRODUCT OF McCORMICK & CO.

Sheep Manure—An economical and effective balanced plant food. Weed-free and rapid in its action. Supplies an abundance of humus and all the essential plant-food elements.

Super Phosphate—Aids plant nutrition and assists the plant to assimilate other ingredients. An efficient fertilizer element for lettuce, truck crops, cereal crops and alfalfa.

Triple 20—High concentrate plant food in powder form. Instantly water soluble and more quickly absorbed by plants. Contains all needed food elements.

Vermiculite Soil Conditioner

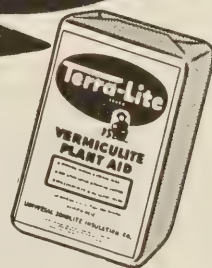
Terra-Lite—Use as mulch during winter; in Spring, work it around base of plants as soil conditioner. Unexcelled growing medium for flats. Also excellent for storing root crops and bulbs.

**Plant Food-Seed,
Combination**

Reddi-Gro — The new way to build lawns. Seed and lawn food in one. Eliminates crab grass before it gets a start.



**New Discovery
Transforms
Caked Top Soil
Into Airy Loam!**



Terra-Lite* Vermiculite, the magic garden discovery, worked into your top soil, holds and releases air, water and plant food in just the right amounts. You'll have the finest garden you've ever had, with less toil, less watering. Use it for conditioning soil, building lawns and also for starting seeds, rooting cuttings, mulching, storing bulbs—countless other gardening uses throughout the year.

We will gladly help any user to plan wisely in using Terra-Lite. Just ask us. Come in today.

*Terra-Lite is the registered trade mark of the
ZONOLITE Company

How?

When?

Where?

Why?

PLANT FEEDING

Gardeners all know that if the soil is to feed the plants year after year, then the gardener must help the soil by supplying plant food. A large portion of the soil's native fertility is lost each year through removal of plant growth, and by erosion and leaching. Seldom is a soil to be found which has not been exhausted of one or more of the vital plant food nutrients.

Fortunately, plant feeding is a rather simple and easy job. While plants require many different elements from the soil, these can be provided by just one complete, balanced plant food, such as Vigoro* and Instant Vigoro. Without odor or muss, modern complete balanced plant food takes care of all the vital nutrient needs of plants, regardless of the soil's natural fertility level.

The physical condition of the soil is also important. If it is low in organic matter, if it bakes and cracks when dry, or is too sandy, it can be improved by addition of humus and conditioning materials such as peat moss, compost, and vermiculite.

A Matter of BALANCED Diet

Buying plant food for lawns and gardens is like buying food for your table. To keep healthy, you need a balanced diet . . . you would not think of keeping your children on an all starch diet just because it is cheaper. You know they need proteins and minerals, too.

It is the same way with flowers and vegetables, too. They need many different plant food elements from the soil for root, stem, fruit or flower development. For these reasons, we recommend Complete Plant Food, which supplies in balanced proportions the vital nutrients plants need from the soil for the best growth and development.

For LAWNS:

Apply evenly according to manufacturer's instructions. (With New Process Vigoro, you'll need only 3 lbs. per 100 sq. ft.)

For hot weather feeding or supplemental feeding to stimulate summer growth and deepen foliage color we suggest liquid feeding with Instant Vigoro. (Like famous Vigoro, Instant Vigoro is complete plant food.)

For FLOWERS, VEGETABLES, BERRIES

Apply complete plant food at the rate of 4 pounds per 100 sq. ft. of area before seeding or setting plants. For established perennials apply around plants or along both sides of row early in spring at six to eight week intervals.

When setting out vegetable and flower plants use two level tablespoons of Instant Vigoro per gallon of water and pour one cup of solution around roots of each plant. For summer feedings of liquid plant food follow the manufacturer's recommendations.

For TREES

Make a series of holes 12 to 18 inches deep with 2" soil auger or a pointed stick under the drip of the branches. Figure the plant food need per tree by measuring the diameter four feet from the ground and allowing 3 pounds of complete plant food per inch of diameter. Fill holes with a mixture of half Vigoro and half soil or sand.

TWO MORE GARDENING TIPS

Good cultural practices call for keeping weeds out of your lawn and garden.

In the garden, you will have to use the hoe. In the lawn, however, you'll find it simple and easy to spray weeds away with modern weed killers such as End-o-Weed 2,4-D Lawn Weed Killer which kills over 100 kinds of weeds and End-o-Weed Crab Grass Killer that kills ugly crab grass.

Finally, you must keep insects and fungus disease under control. We have a complete line of insecticides for every need. But, if you grow a variety of things, you'll get better results and save time and money by using an all around insecticide, such as End-o-Pest, 3-Way garden dust to prevent and control all major types of chewing and sucking insects and fungus diseases. For the control of such pests as ants, roaches, and chiggers in buildings and yards we suggest a chlordane formulation such as End-o-Pest ARC.

If you plant right, weed right and protect right . . . you'll get better results and more pleasure and benefit from the seed you buy from us.

The VIGORO Family of Gardening Aids!



*Vigoro is Swift & Company's trademark for complete plant food.



INSTANT

VIGORO
Complete Plant Food

IN CONCENTRATED FORM FOR LIQUID PLANT FEEDING

Like famous Vigoro, Instant Vigoro is a complete plant food. It is prepared in a concentrated crystalline form designed for liquid feeding. Ideal for foliar feeding (Absorption of nutrients through the leaves of the plant) as well as for normal root-zone feeding.

VIGORO has spelled top-quality plant food for many years, and INSTANT VIGORO will give equally fine results. Ideal for gardeners who prefer to apply plant food in liquid form.

It comes in convenient size packages; 8 oz., 16 oz., 3 lb., and 25 lb., for feeding house plants or the largest lawn.

How to Build Healthy Soil with PEAT MOSS

Peat Moss literally gives soil new life—by adding pure, weed-free, spongy, 98% organic vegetable matter. It opens up the soil, admitting vital air and moisture, and acts as a reservoir for plant food, releasing it to the roots as they need it. Thus, it insures maximum return from seed, fertilizer and time invested.

Peat Moss loosens heavy soils . . . gives substance to light soils . . . gives all soils loam-like texture . . . prevents surface crusting.

FLOWERS, BULBS

Mix well a 2 to 3 inch layer of moist Peat Moss into top six inches of soil. Add plant food and (except for acid-loving plants) 5 lbs. of agricultural lime per bale of Peat Moss.

VEGETABLES

Spade a 2 inch layer of moist Peat Moss into top 6 inches of soil. Add agricultural lime (10 lbs. per 100 sq. ft.), except for root crops like potatoes, turnips, carrots, etc.

ROSES, SHRUBS, TREES

Dig large hole so roots can spread freely. Mix 1/3 moist Peat Moss with 2/3 soil (by bulk) for fillback. Settle soil in filled hole by soaking. A 2 inch mulch of moist Peat Moss will doubly ensure sturdy growth.

EVERGREENS

Plant broad-leaved (Azaleas, Camellias, Rhododendrons, etc.) in a 50-50 mixture of moist Peat Moss and soil. For cone-bearers (pines, spruce, hemlock, etc.) use 1/3 Peat Moss, 2/3 soil. A 2 to 4 inch mulch of Peat Moss improves appearance.

LAWNS (new)

Mix 1 to 3 inches of Peat Moss into top 6 inches of soil. Rake in plant food, sow grass seed, roll (in dry weather), and water gently.

LAWNS (established)

Topdress with 1/4 inch Peat Moss and rake it in well every six weeks. To renovate poor spots, work 1/2 inch Peat Moss into soil, add fertilizer, reseed, and water well.

INDOORS

House Plants: Mix 1/3 Peat Moss to 2/3 good loam. A pinch of plant food helps if yellowing of leaves develops. Bulbs: Fill container with Peat Moss. Keep moist. For tulips use 1/3 Peat Moss, 1/3 loam, 1/3 sharp sand.

COMMERCIAL

Propagating: Use a 50-50 mixture of Peat Moss and sharp sand. Transplanting: Mix 1/3 moist Peat Moss with 2/3 soil. Lining-out beds: Use soil mixture containing 25% Peat Moss for deciduous stock, up to 100% Peat Moss for Azaleas, Rhododendrons, etc.

ANYWHERE, STORING

Use Peat Moss any time to improve poor soil and maintain good soil. Store and ship bulbs, roots, fruits, vegetables in Peat Moss. It is light, absorbent; it insulates and protects.

As a Summer Mulch — When plants are growing well, after cultivating soil, mulch around them with 1 to 4 inches of moist Peat Moss. This will keep down weeds, make further cultivation unnecessary, keep the soil moist and cool, and the roots vigorous, and give your plantings a neat, well-groomed appearance.

As a Winter Mulch — Peat Moss is a splendid insulating material. It prevents root injury by soil-heaving (alternate thawing and freezing). After the first freeze, apply about 2 inches of Peat Moss around all plants and hill up about 10 to 12 inches around the base of roses and shrubs. Apply moist to prevent blowing. In the Spring, Peat Moss can be raked off and used elsewhere as a soil conditioner.

(Data by courtesy of
Premier Peat Moss)

PLANTABBS—Good for Every- thing That Grows

A Rich Meal of Nitrogen,
Phosphates, Potash, Plus
Vitamin B¹



Feed them PLANTABBS. If you don't get lovelier plants and flowers, and a greater yield of finer vegetables, you get your money back. PLANTABBS are clean, odorless, highly concentrated PLANT FOOD TABLETS which help produce sturdy stems, luxuriant leaves, strong roots and gorgeous blooms. 25c, 50c, \$1.00 and \$3.50 size boxes.



Fulton's
PLANTABBS

PLANT FOOD TABLETS PLUS B¹

HYPONEX

Grows Better Plants Faster
In SOIL, SAND or WATER



Simply dissolve and water all your houseplants, garden flowers, vegetables, shrubs or lawn. Produces stronger plants, more and larger flowers and fruit. Excellent for starting seedlings, cuttings, transplants. Clean, odorless. Won't burn foliage or roots if used as directed. Contains all nutritional elements complete and balanced—plus vitamin B¹—instantly available. Results sure.

1 oz. pkt.....	10c	7 oz. can.....	50c
3 oz. can.....	25c	1 lb. can.....	\$1.00
10 lb. drum, makes 1000 gals.....			8.00
25 lb. drum, makes 2500 gals.....			15.00
50 lb. drum, makes 5000 gals.....			25.00
100 lb. drum, makes 10,000 gals.....			40.00



Ask us about PLANT FEEDING

The difference between a good lawn—or garden—and a poor one, more often than not, is A MATTER OF FEEDING. The best grass in the world can't give you a good permanent lawn unless the soil is fed, regularly and correctly. Same way with flowers, vegetables, shrubs, trees.

We want to help

That's why we say, "Talk it over with us!" We don't just sell plant foods. We want to help all we can to make sure you get results.

Whether it's window box or a hundred acres to be fed—we have the right food and the "know-how" and the desire to help!



INSECTICIDES & FUNGICIDES

All-Around Spray (Acme)—Multi-purpose formula for roses, shrubs, fruit trees. This one spray does the job. (See Acme display for full data.)

Antrol Traps—Kills both sweet and grease eating ants.

Arasan (Seed Treatment)—An effective dry seed disinfectant and protectant for destroying surface seed-borne organisms and protecting the seed against soil-borne organisms responsible for seed decay.

Arsenate of Lead—Controls practically all leaf-eating or chewing insects.

Black Leaf 40—Nicotine Sulphate 40% solution for controlling aphids (plant lice), thrip and soft bodied sucking insects.

Bordeaux Mixture—Standard copper insecticide for controlling black spot, mildew, blight, other fungus diseases.

Calcium Arsenate—Cheap quick-acting poison for potato bugs; leaf-eating insects.

2% Ceresan (Seed Treatment)—Reduces seed rotting and damping-off; gives more uniform stands with less seed.

New Improved Ceresan (Seed Treatment)—Kills seed-borne diseases, such as root-rot and seedling blight, by both contact and vapor. Use on barley, oats, wheat, rye, sorghum, flax, peas, cotton.

Chlordane Dust (Acme)—The new control for a large group of insects in the lawn, garden, and indoors.

C-O-C-S Copodust—A dusting fungicide. Use to control early and late blights on tomatoes, potatoes, celery and other fungus diseases on many vegetables.

End-O-Pest (Swift's)—All-around garden

dust in a refillable sprayer package which sprays or pours.

Kolo Fruit Tree Dust or Spray—An efficient and safe insecticide-fungicide combination for small fruit growers. Protects against the most injurious insects and fungus diseases on Apple, Pear, Peach, Plum and Prune trees.

Paris Green—For control of chewing insects, particularly potato bugs.

Pomo-Green—Use as dust or spray for flowers. Controls black spot, mildew, rose chafer, aphids and many other chewing and sucking insects on roses, other flowers and ornamentals.

Red Arrow Garden Spray — Contains Pyrethrum, Rotenone, Soap. Harmless to animals.

Red Arrow Dust—Use as spray or wash for fruits, flowers, vegetables.

Rose and Floral Dust (ACP) — An all around insecticide for flowers or roses. Combines fungicide, insecticide, aphicide, and miticide—by combining Ferbam, DDT, Lindane, Sulphur and Ovipran. Use as dust or spray.

NEW!
**POMO-
GREEN**

FOR ROSES and other flowers

An improved formulation, effective at all temperatures. A leaf-green dust or spray that controls black spot, mildew, rose chafer, aphids and many other chewing and sucking insects on roses, other flowers and ornamentals.



**KOLO FRUIT
TREE
DUST or SPRAY**

An efficient and safe insecticide-fungicide combination for small fruit growers. Protects against the most injurious insects and fungus diseases on Apple, Pear, Peach, Plum and Prune trees.

**C-O-C-S
COPODUST
A DUSTING FUNGICIDE**

Use to control early and late blights on tomatoes, potatoes, celery and other fungus diseases on many vegetables.



**FREE! DUST AND
SPRAY GUIDE**

Tells where, when and how to use Niagara Farm and Garden Brand protective chemicals. Write us or ask your dealer.



Niagara

FARM AND GARDEN BRAND
Insecticides and Fungicides

NIAGARA CHEMICAL DIVISION
Food Machinery and Chemical Corp.
Middleport, N. Y.



ANTROL-SNAROL INSECTICIDES



Snarol Cutworm Bait

Prepared meal for control of cutworms, armyworms, crickets, grasshoppers. Contains Toxaphene. In 1, 2½, 6 and 50 lb. sizes.



Antrol Rose Spray Flower Bomb

New push-button spray kills aphids, Japanese beetles, leafhoppers, thrips, others. Protects Roses, Camellias, Geraniums, etc. 12 oz.



Antrol Ant and Roach Bomb

Quick, handy push-button way to control ants. Leaves residual deposit of Lindane, remains effective for weeks. Also kills roaches, spiders.



Antrol Ant Spray

Contains Chlordane in water base, kills ants, Japanese beetle grubs, lawn moths, roaches. Residual action. Pts. and qts., sprayer attached.



garden insecticides

BOYLE-MIDWAY INC.
GARDEN INSECTICIDE DIVISION
New York 16, N. Y.
Cranford, N. J., Chamblee, Ga.
Chicago, Ill., Los Angeles, Cal.

Identify your insects!

Biting or Chewing insects such as beetles, caterpillars, grasshoppers, and the like, can best be controlled by the application of poisons to the plants upon which they feed.

Sucking Insects such as aphids, weevils, leaf hoppers, etc., insert their beaks into the leaves, stems or fruits and suck the plant juices. Hence "stomach" poisons applied to the surface of the plant will not kill them. They must be killed by use of contact poisons.

Scale Insects that develop protective coverings are most easily killed by strong corrosive solutions, such as a concentrated lime-sulphur mixture, applied during late fall or winter when foliage is off the plants—and by other materials.

Snarol—For snails and slugs. Contains metaldehyde. Lures slugs and snails from plants and kills them fast. Available in meal and pellet form.

Special Semesan (Seed Treatment)—Effective in preventing and controlling both brown patch and dollar spot. Provides wide margin of safety with little danger of yellowing or thinning turf when applied.

Semesan Bel—For use on potatoes. Controls many seed-borne diseases.

Lime Sulphur, Liquid—A dormant spray material against scale of all kinds.

Lime Sulphur, Dry—A dormant spray to kill scale or use as a summer spray for control of fungus disease.

Mildew Spray—Strong liquid spray for control of mildew, leaf spot and black spot on rose bushes, flowers.

RED ARROW GARDEN SPRAY

Non-poisonous. Kills most chewing and sucking insects quickly, safely. 1 oz. makes several gallons of spray.



1 oz., 4 oz., and 1-pint bottles

Ask for free booklet
"It's Easy to Control Garden Insects"
 A PRODUCT OF **McCORMICK & CO.**
 Baltimore 2, Md.

RED ARROW AGRICULTURAL DUST

3/4%
 ROTENONE!



Non-poisonous—spray or wash. Kills bean beetles, cabbage worms, etc. Dust about every 10 days.

2-lb. and 5-lb. packages
 (1% Rotenone in 50-lb. drums)

A PRODUCT OF **McCORMICK & CO.**
 Baltimore 2, Md.



One ounce of **Black Leaf 40** makes six gallons of spray which protects your garden and orchard from infestation by aphids, leafhoppers, most thrips and other soft-bodied sucking insects. It kills these pests two ways — by contact and by fumes.

Black Leaf 40 spares bees and other beneficial insects... never stains or burns and leaves no unsightly or objectional residue on flowers, foliage or fruit. Also keeps dogs away from shrubbery when used as directed.



ACME GARDEN GUARD



America's favorite rotenone dust for vegetables and flower gardens. Safe to use on edible portions of plants right up to picking time. Kills most common garden insects of both sucking and leaf chewing types. No mixing, no muss — shake from sifter package hitting insects to be controlled. 1 lb. sifter \$.50 ea. 4 lb. sifter \$1.00 ea.

ACME ALL ROUND SPRAY

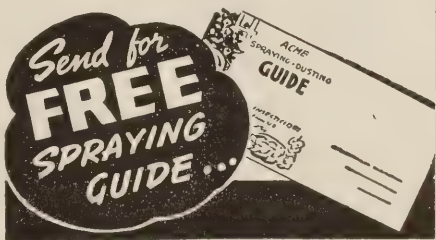


For the gardener who cares. All Round Spray gives highest degree of protection to flowers, fruit trees, shrubs and vegetables from ravages of insects and blight. Combining two insecticides and two fungicides, if used regularly, one or more of the active elements are always at work. 1 lb. \$1.10 ea. 4 lb. \$3.50 ea.

ACME BORDEAUX MIXTURE



This mixture is the standard copper fungicide that has given fine satisfaction for over a hundred years. Controls many diseases on fruit trees (including peach leaf curl), vegetables, flowers and shrubs. As Bordeaux is a preventive, spraying should start early before spores gain foothold. 1 lb. 50c ea. 4 lb. \$1.35 ea.



COMPLETE PROTECTION ACP ROSE & FLORAL DUST

One product does it all! A fungicide, insecticide, aphicide and miticide all in one. Can be used as dust or spray. Contains Ferbam, DDT, Lindane, Sulfur and Ovotran.®

1-lb. shaker canister \$1.49

3-lb. canister \$3.59

ACME 5% LINDANE SRAY

Extra satisfaction in killing insects with this new super killing insecticide for fast control of aphids, thrips, plant bugs, caterpillars and most all common beetles and bugs infesting azaleas, roses, other flowers, shrubs, vines, fruits and vegetables. Kills three ways, by contact, with vapors and as an internal poison. 4 oz. \$.80 ea., 1 pt. \$2.70 ea.

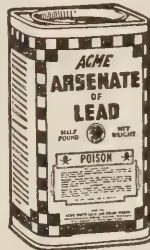


ACME TOMATO DUST



Many common spraying and dusting materials are irritating to tomato plants, causing rapid respiration so that they lose moisture more quickly than the plant can replace. Acme Tomato Dust is especially formulated for tomatoes, controlling blights and worms and permitting best possible harvest. 1 lb. sifter \$.60 ea. 4 lb. bag \$1.50 ea.

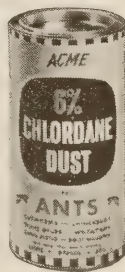
ACME ARSENATE OF LEAD



Thoroughly reliable in killing eating insects which destroy foliage and attack fruits. Safe to use on tender foliage. When worked into lawns and other turf, grubs, worms, etc. are killed and the turf "proofed" against insects for some years. Treatment discourages germination of crabgrass seeds. 1 lb. ctn. \$.72 ea.

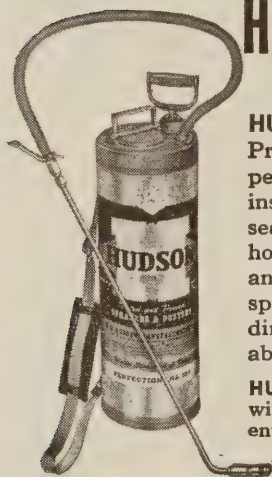
ACME 6% CHLORDANE DUST

Kills ants and other soil infesting pests. Application easy, just sift on lawns or in gardens. Controls ants, chinch bugs, chiggers, Japanese beetle grubs, and sod webworm in lawns; cutworms, earwigs, mole crickets, sowbugs, millipedes in gardens; and worked into gardening soil, kills wireworms, white grubs, and root maggots. 1 lb. sifter package 60c ea. 4 lb. bag \$1.50 ea.



BLAST THE BUGS!

Protect Garden Beauty, Conserve Food with
HUDSON SPRAYERS, DUSTERS



HUDSON "SIMPLEX"® PERFECTION®. The Higher the Pressure, the Tighter the Seal. Simplest, safest, most dependable compression sprayer ever made. Cover seals from inside of tank... pressure provides positive leak-proof seal. Holds 4 gallons. All-welded tank. 42" spray-proof hose. 5-spray nozzle adjusts to give fine to coarse spray and 20 ft. long-distance spray. Extra nozzle cap for flat fan spray. Roto-Valve permits spraying in any direction without twisting hose. Comfortable 1½" wide adjustable carrying strap.

HUDSON CLIMAX®. Same advanced design with 3-gallon tank, single nozzle with 4 different spray discs.



TRADE MARK

How . . . When . . . Where
in **INSECT CONTROL**

A leading entomologist recently said, "Progress in the last three years in development of insecticides has been greater than in the previous fifty."

The great sensation of the insecticide field has, of course, been DDT. It can now be said that DDT has fully lived up to its early promise of help for the home gardener. It has rightly been credited with miraculous results in many serious situations.

However, it must be remembered that DDT is not a cure-all. No single insecticide can ever take care of every situation.

Chlordane, the new wonder

Now comes another widely heralded new chemical miracle for the gardener — chlordane (also known as 1068). And again the results are living up to the early promises. Chlordane must now be recognized as a great new weapon in the battle with the insects.

But Chlordane, like DDT, is not a cure-all. Remember, therefore, to consider it as just one more tool for the gardener—a highly valuable tool, but not a universal remedy.

What will chlordane do?

It is highly effective against grasshoppers and the American cockroach, Colorado potato beetle, squash bug, and some aphids. It is very effective on ant nests. It is the fastest working chemical yet found against Japanese beetle grubs in soil, killing 2½ times faster than DDT.

Further experience probably will increase the list of victories for Chlordane.

Meanwhile, we suggest that you begin to use this newcomer, while keeping on with DDT for the purposes it serves best.

Ask Us for the Remedy!

Insects are spread over the season and in different stages of life from the egg, the larva to the bug itself. Their methods of attack vary in two ways either as chewers or suckers. The wide variety of harmful insects in their varied stages of life require in some cases vastly different chemicals to meet the immediate requirements.

To link up each bug with the insecticide that will handle him, JUST ASK US. We keep very close watch on all new developments. We know exactly which of the new formulas have proved themselves . . . and what they can do. This practical knowledge is at your service, whenever you need it!



HUDSON FAVORITE* Compression Sprayer

A beautiful, useful gift. Finest, lightest 1¾ gal. home sprayer. New Saf-T-Lok* for easy sealing, safer opening. 5-spray nozzle — extra fine to long-distance. 5-ft. plastic hose.



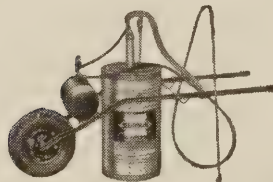
HUDSON LEADER* Compression Sprayer

Premium quality materials and workmanship at attractive price. Safest screw top ever built into a compression sprayer. 3½-gal. tank.



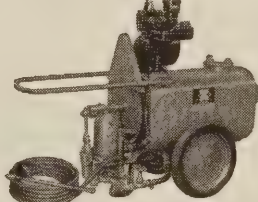
BUGWISER* and BOOSTER Compression Sprayers

Economical, efficient with seam-welded tank. Saf-T-Lok with easy funnel filling. Bugwiser: 2¼ gal., with 10" brass pump. Booster: 3-gal., 12" brass pump. 3 spray discs.



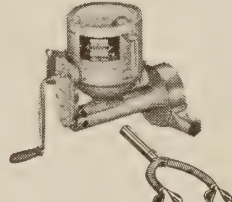
HUDSON IDEAL* Porta-Sprayer

Gives 250 lbs. pressure; takes 2 leads of hose. 15 gal. tank, 10 ft. hose. Also Hudson Sunshine—200 lbs. pressure. Order with or without pressure tank; or with steel, cushion or pneumatic-tired wheel.



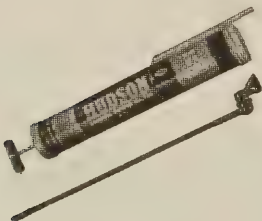
HUDSON MATADOR* Power Sprayer

Pumps up to 4 gals. per min. at pressures up to 250 lbs. 20 ft. spray-proof hose with full size power sprayer gun. 15-gal. tank with 1 h.p. engine. 30-gal. with 1½ h.p. engine. Wide cushion tires.



HUDSON ROTO-POWER® 806B Duster

Delivers greater volume of air at greater speed than any other. Light weight aluminum. For any powder pesticide. Dust one or two rows, any direction. No. 801 is similar, in steel. Less capacity.



HUDSON ADMIRAL* Duster

A beautiful gift with countless uses. Applies 1 qt. of any powder pesticide or weed killer. Nozzle dusts in any direction, high or low.



HUDSON NO. 428 CRITIC®

With 2-Spray®. With nozzle pin right, gives fine mist; left, gives wet surface spray. Glass jar. Brass cap and nozzle pump end. MERCURY NO. 433. Also with 2-Spray, tin plate container.



HUDSON ECLIPSE*

Every metal part all stainless steel. A beautiful lifetime sprayer for use indoors and out. 2-spray nozzle for fine mist or wet surface spray. A beautiful and durable gift.

PRICES subject to change

As is usual in seed catalogs, we must notify you that prices are subject to change without notice. We shall of course, make every effort to maintain our listed prices.

GARDEN SUPPLY PRICES NOT PREPAID

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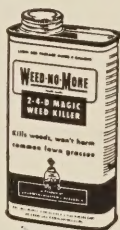
WEED KILLERS

Nowadays, it takes only two types of weed killers to do the whole job of weed eradication around most homes. 2, 4-D, the miraculous new selective killer (Weedone, End-o-Weed, Weed-no-more) will do nearly all the work without a bit of digging. You just spray it on! The only other control you need is a good crab grass killer. For more extensive weed problems other materials may, of course, be needed. We have these, too — and can advise you about their uses.

—At Your Seed Store!

WEED-NO-MORE

2,4-D. Rids lawns of ugly weeds such as dandelion, plantain, chickweed, ragweed, poison oak and many others without injury to common lawn grasses. **Don't dig — spray the weeds away!** A handy applicator fits a gallon or half-gallon jug for easy spraying. 8 oz. bottle covers average size lawn \$1.00; quart \$2.98; applicator 49c or free with purchase of quart size.



THE NONPOISONOUS WEEDONE® CRAB GRASS KILLER

Contains potassium cyanate. Highly effective, but non-poisonous to humans and animals. Kills crab grass and chickweed, without killing bluegrass, clover or other deep-rooted grasses. Clean, economical and easy to use.

6 ½-oz. can, \$1 • 26-oz. can, \$3
6 ½-lb. can, \$8.85

THE WEED KILLING MIRACLE

NEW IMPROVED WEEDONE®

Contains the powerful 2,4,5-T and 2,4-D

Now Weedone kills woody plants as well as dandelions, plantains and other lawn weeds, without killing grass. It kills poison ivy, poison oak, the brambles (blackberry and raspberry), honeysuckle and over 90 other woody plants. Sprayed on top and sides of tree stumps, it prevents resprouting.

The new, improved Weedone does not give off vapors that cause injury to rose bushes, tomatoes, flowers or ornamental shrubs. Harmless to humans and animals.

8-oz. can \$1 1-gal. can \$6.95
1-qt. can \$2.75 5-gal. can \$25

Weedone Plastic Applicator. Cap makes handy ½-oz. measure and fits any screw-top gallon jug. All plastic; no sharp metal edges to cut and scratch hands.



WEEDONE

ONLY
59¢

GROWTH AIDS

Plant hormones, the modern garden wonder, can do many amazing things. They stimulate seed germination, make cuttings root faster, give you better seedlings,, help transplanting by reducing shock and wilt. They stop fruit and blossom drop, produce better tomatoes, beans, etc., and help in many other ways.

But, for the best results, be sure you have the right hormone for each purpose! We have them all and can advise you about their correct use.

—At Your Seed Store!

TRANSPLANTONE®

Hormone-Vitamin Combination

Reduces wilt and loss when transplanting

Vegetable gardeners: Cut down transplanting losses; give seedlings healthier roots. Get earlier, larger crops of tomatoes, finer cabbage, cauliflower, lettuce.

Flower gardeners: Use Transplantone when transplanting seedlings and shrubs, to get finer blooms, stronger growth.

½-oz. packet, 25c • 3-oz. packet, \$1
1-lb. can, \$4

IT'S FUN TO MAKE CUTTINGS FROM YOUR FAVORITE PLANTS

ROOTONE

with Fungicide

It's easy. Rootone stimulates the natural tendency of cuttings to put out roots. Newly added fungicide protects against damping-off and other soil-borne diseases.

¼-oz. packet 25c • 2-oz. pkg. \$1
1-lb. can \$5.00

MORE TOMATOES! FRUITONE®

Spray Fruitone at blossoming time and each plant will set more fruit and bear more big, meaty tomatoes. Spray Fruitone for bigger crops of beans and lima beans, too. The dollar package makes 25 gallons of spray.

2/5 oz. packet, 25c • 2-oz. pkg., \$1
12-oz. can, \$5

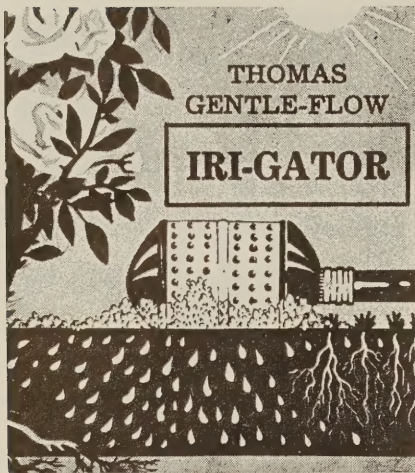


New! Tested! Provides an easy, more positive way to induce rapid rooting of African Violets. Higher percentage of leaves propagate... produce more roots. Large bottle \$1.

Thompson's TOMATO FIX

FOR EARLY
SEEDLESS
TOMATOES

Spray early flowers and stimulate fruit growth. Get larger, firmer, more flavorful seedless tomatoes of any variety... Up to 30% more fruit on same plants. Ready to spray liquid. 8 ounces \$1.



Throw away your sprinkler!

Switch to deep-root watering,
the 3-times-better way

Do you know about this better way to water plants, flowers, shrubs?

IRI-GATOR puts water where it will do your plants the most good—**deep down in the soil**. It replaces superficial surface sprinkling with gentle rivulets which **soak the soil** way down deep. It nourishes and builds deep roots . . . the roots that really count . . . lets you water without waste, without erosion. Plants get more food. There's no wet foliage to invite disease. Yes, **watering once-a-week** with IRI-GATOR is better than daily watering with a sprinkler!

Over 100,000 in Daily Use!

Approved by Men's Garden Club of America. Lasts for years. Only \$1.50

ACME PLANTERS

Better planting... faster... easier
FOR CORN

You can plant an acre an hour by hand, with an **ACME 306 Corn Planter!**

There's no finer device for hand planting. Operation is easy and highly accurate. The segmental slide is adjustable to vary the drop—exactly as you want it. Sturdily made, to give years of dependable service.

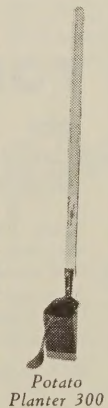
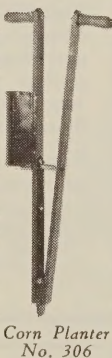
ACME No. 308, with Fertilizer Attachment. Here's a real time saving combination! Divided jaws, with separate compartments for seed corn and fertilizer, let you fertilize as you plant—yet the fertilizer doesn't come down in contact with the seed corn.

Corn Planter No. 308

FOR POTATOES

In less than an hour, you can plant enough potatoes to supply three average families for a year—if you use the handy, efficient **ACME 300**. Costs so little, yet turns a tough job into play. Good in new ground, sod, or stony land. Beech or maple handles, with rolled steel, rust-treated jaws. Every good gardener needs it!

ACME LINE MFG. CO.
Traverse City, Mich.
Mfrs. of sprayers, planters and dusters since 1866



Garden Supplies and Tools

Many of your garden chores can be made much easier—if you use the new, improved garden tools.

Modern designers have discovered numerous ways to improve the old tools—to make the work easier and to improve results. We have these newer tools for you, together with a good assortment of the standard designs. Next time you're in our store, be sure to look them over!

GARDEN GLOVES

Garden Gloves—Protect your hands—wear gloves in your garden! Canvas or leather, in sizes for men and women.

GARDEN HOSE

Visit Our Store for our newest offerings. Garden hose is now available in good quality and quantity.

LABELS

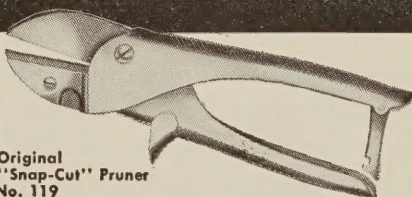
Pot or Garden Labels (Wooden)—Used for marking plants in pots or seed flats, 4 inch, 12 inch.

Wood Tree Labels, Wired. Painted wooden labels equipped with wires, for marking trees or shrubs; also used extensively for labeling dahlia tubers.

PLANT BANDS

Square bands hold almost twice the number of plants as round pots of the same size.

WORLD'S FINEST PRUNER



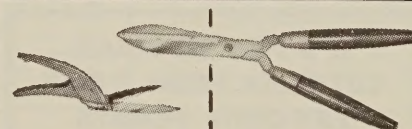
THE "SNAP-CUT" IS THE
HOME GARDENER'S HANDIEST TOOL

Razor sharp blade acts on a soft, non-dulling metal anvil. Cuts tough, 3/4" branches with amazing ease. Though imitated throughout the world, the "Snap-Cut" Pruner has never been equaled. Your dealer will tell you "Snap-Cut" tops them all.

"EZY-CUT"

GRASS SHEARS

HEDGE SHEARS



Smooth working, easy cutting. Makes trimming lawn edges easy.

Made like a tailor's scissors. So balanced, they're almost effortless to use.



SEYMOUR SMITH

OUR 103rd YEAR

The Line of Quality

Other famous Seymour Smith tools — saws, lopping shears, tree trimmers, etc. — will all help make your gardening easier.

2 in. size; packet of 30, 25c. (Ask for prices on larger sizes and quantities.)

PLANT SUPPORTS

Bamboo Stakes—Green, pencil-thickness. 2 ft., 3 ft., 4 ft.

Dahlia or Garden Stakes—Wooden—Painted green. Strong and durable. Almost rot-proof. Will last several seasons. For supporting dahlias, young trees, etc. 4 ft., 5 ft., 6 ft.

POTS AND SAUCERS

Standard Earthen Flower Pots. Many sizes, from 2 1/2 in. to 12 in. diameter.

Earthen Flower Pot Saucers. 3 in. to 12 in.

Red Paper Pots. Excellent for growing seedlings or for packing plants for shipment. 2 1/4 in. to 6 in. diameter.

BIRD HOUSES AND FEEDERS

Window Bird Feeders—Provides an opportunity to study your bird companions from your window. Ideal for shut-ins and a real companionship for any bird lover.

Bird Houses—A great deal of pleasure can be derived from the birds that will be attracted to your yard by putting out a bird house or two. We carry many types and styles for bird lovers to choose from.

WILD BIRD SEED MIXTURE

Feed your feathered friends the year round with this tempting mixture. All types of wild birds relish this seed. Don't forget to give them plenty in the winter months.

TOOLS



Cultivators, Speedy — 4 sharp curved tines, 4 1/3 ft. handle.

PRICES

subject to change

As is usual in seed catalogs, we must notify you that prices are subject to change without notice. We shall of course, make every effort to maintain our listed prices.

GARDEN SUPPLY PRICES NOT PREPAID

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Norcross—Adjustable steel teeth.

Hand Cultivator Weeders—3 or 5 prong.

Forks, Spading—4 times, D handle, light and heavy weight.

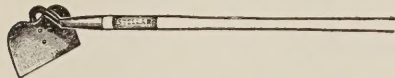
Hay Fork—Bent handle, 3 or 4 tines.

Hooks, Grass (Sickles)—Various styles, well balanced designs. Wood handles.

Potato Hooks—4 broad tines, tumbled.

Shears, Grass—Pinch-proof handles.

Hedge Shears—8 or 9 in. blades.



Hoes, Field or Garden—Various styles.

Onion Hoe—Square top pattern.

Scuffle Hoe—8 inch blade; straight handle.

Warren Hoe—Pointed steel head.

Knives, Asparagus — 10" with V-shaped point.

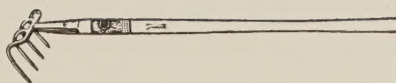
Budding, Propagating and Pruning Knives. See our selection.

Edging Knife—Half-moon blade.

Scythes, Grass, Weed and Bush—Best crucible steel. Visit our display!

Shovels, Square Point—Long and D handles.

Round Point Shovel—Long D handle.



Rakes, Steel, Curved Tooth—Straight handles; teeth on head 1/4" thick.

Steel, Straight Tooth Rakes—Level head.

Wood Rakes—Rigid and strong.

Bamboo Rakes—Fan shaped, strongly made.

Steel-Broom-Rake—Flat, spring-steel teeth.

Pruners, Tree—8 ft., 10 ft., 12 ft.



Pruning Shears—Again available in several styles.

Flower Gathering Shears—They cut the stem and hold the flower for you.

Spades, Square Point—Flat Blade, D handle.

Trowels—All-Steel Garden—Made of one handle.

Transplanting Trowel — 6" blade of solid steel.

Weeders, Hand—3 steel prongs; short handle.

Lawn Weeder — Curved forged-steel blade.

Weeder and Hoe Combined—A labor saver.

Dandelion Weeder—V-shaped design.

GENERAL ELECTRIC HEATING CABLE SETS



These frames of young plants will make fast growth in this cold frame, equipped with G-E heating cable sets.

**Large, strong plants
...and more of them
...with these**

GENERAL ELECTRIC HEATING CABLE SETS

A little heat *in the soil* does wonders — in hotbeds, cold frames, in greenhouses — prevents root rot and makes plants grow faster than ever before. That's what G-E soil-heating cable does — supplies gentle, even growth-producing heat that enables you to transplant earlier than ever before.

G-E heating cable is laid 4 to 6 inches below the soil surface. It comes ready-to-install in sets of 30 and 60 feet of cable formed into 15-foot and 30-foot "hairpins" with ends assembled into a weatherproof plug... for 110 volts. Also 120-foot sets formed into 60-foot "hairpins" for 220 volts. A thermostat can make the operation automatic.

G-E heating cable sets are worth investigating. Let us show them to you.

Planet Jr.

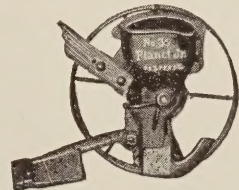
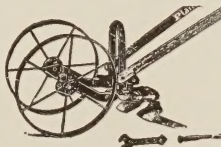
GET MORE DONE WITH LESS EFFORT



"Tuffy" Garden Tractor

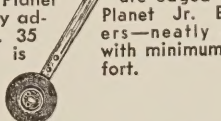
Powerful 1 h.p. motor makes light of work. Attachments include: Lawn Mower hitch, plow, cultivator, fertilizer, hauling cart, seeder, snow plow and earth grader.

Planet Jr. Single and Double Wheel Hoes have been designed by practical men to do the proper kind of work—the way you want it done.



Planting with a Planet Jr. Seeder has many advantages. The No. 35 Seeder Attachment is ideal for a small garden.

Miles of walk are edged with Planet Jr. Edgers—neatly and with minimum effort.



Famed for 80 years as makers of dependable hand, animal and tractor-powered tools for farm and garden.

S. L. ALLEN & CO., Inc.

5th St. & Glenwood Ave., Phila. 40, Pa.

PROTECT YOUR GARDEN with
SCARE-AWAY
the Modern Scare-crow
Shiny aluminum strips crackle and flash.
Keep birds or animals away day and night.
Lasting protection for gardens and farms.
10 Strips to a package, \$2.25; commercial pack of 100 strips, \$1.80.
4 PKGS. POSTPAID \$1.00
PACKAGES OFFER 25%
Illustration of a scarecrow and a package of Scare-Away strips.

PORTCO
CINCH-TIES
Wire Center Plant Ties for quick tying
Durable and attractive green color. In 8-inch lengths or handy ball of 250 and 500 ft. Cut to desired lengths for quick tying.
100 8-in., \$.25; 250 ft., \$1.00; 500 ft., \$1.75.
Inquire about bulk put-ups
Illustration of a person using Cinch-Ties to tie a plant and a can of Cinch-Ties.

PORTCO
GARDEN TWINE
WEATHERIZED!
NO SHRINK • NO SAG!
Durable, extra strong Portco Garden Twine is specially treated for weather resistance... lasts more than a full season. Wound for convenient center pull... will not unravel.
250 ft. for 30c; 500 ft. for 50c
SEE THEM at our store
Illustration of a can of Portco Garden Twine.

KELLER'S

A Good Name to Remember **MORE THAN JUST A STORE**

Keller's is more than an ordinary store. Year after year we work hand in hand with the growers of this area—the home gardener, the market gardener, and the farmer. All that we have learned from this experience is always available to our customers. So, you see, we don't just sell seed and related merchandise. We furnish local know-how that comes from all this combined experience.

So, whether it's a question of seeds, or insect control, or soil feeding, or equipment—or any of the many other divisions of this business—you can always find dependable merchandise here.

KELLERS'S PURE LAWN SEEDS: High germinating and best quality, chosen especially for use in our area. **Shady Lawn** best for shady spots. **Best Mixture** for the permanent lawn

PET SUPPLIES: A complete line of everything you'll need for your pets. **Dog Foods, Remedies, Sweaters, Beds, Supplies and Toys.**


Vigoro for beautiful lawns and gardens, and **Endo Weed** to get rid of weeds.

SUPPLIES: Garden tools, wheelbarrows, **Eezy Wear** garden gloves. Everything you need for the farm or garden.


GEO. KELLER AND SONS **909 Maine Street** **QUINCY, ILLINOIS**

TWO NEW ALL AMERICA ROSES

Each year the National Rose Jury selects outstanding roses as All America Rose Selections. 1953 Selections are the Florilunda **MA PERKINS**, soft pink with spicy fragrance, and **CHRYSLER IMPERIAL**, an ideal red exhibition rose.



MA PERKINS
A.A.R.S. 1953



**CHRYSLER
IMPERIAL**
A.A.R.S. 1953